

Johnson, Kay (2014) Static spatial expression in Ske: an Oceanic language of Vanuatu. PhD Thesis. SOAS, University of London

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**Static spatial expression in Ske:
An Oceanic language of Vanuatu**

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Thesis submitted for the degree of PhD in Field Linguistics

2014

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Declaration for PhD thesis

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Abstract

The focus of the thesis is the expression of static spatial events in Ske, a previously undescribed Oceanic language spoken by a few hundred people on Pentecost Island, Vanuatu.

Static spatial events can be split in to two types: non-angular reference, used to express topological relations such as ‘in’, ‘on’ or ‘near’; and angular reference, which see the speakers using a viewpoint with which to locate an entity. The second type involves the use of one of a range of FoRs or Frames of Reference (Levinson 1996, 2003; Levinson & Wilkins 2006). This study investigates how Ske speakers express both types of static spatial event.

Locative predicates are obligatory components of non-angular reference in Ske. In this study, we analyse the seven Ske locative predicates within the frameworks proposed by Ameka & Levinson (2007) and Newman (2002). Cross-linguistic studies show that the semantics of locative predicates are typically analysed as coding the axial properties or actual geometric orientation of the Figure whose location they are describing; in Ske, however, locative predicates code support relations between Figure and Ground.

Traditionally deixis has been omitted from FoR typology and was categorised as being a type of non-angular reference (Levinson & Wilkins 2006). This study finds that deictic reference has projective functions and this warrants its inclusion into the typology as a fourth FoR, the direct FoR, in support of Danziger (2010). Furthermore, the direct and other FoRs are able to combine in Ske in what we term ‘composite FoRs’. When two FoRs combine, the function of the already well-formed expression may alter from one which locates an entity to one which orients an entity. Also, the rotation sensitivity of a composite FoR is in line with the sensitivities of its components. The study concludes that it is the composite FoRs, rather than the absolute FoR, which carries out the functions of the unavailable relative FoR in Ske.

We also investigate the geocentric referencing system in Ske and analyse how Ske speakers describe directions and locations around their villages, their island and beyond. We find that the finer-grained FoR typology (Bohnenmeyer & Levinson 2011) is relevant here and applied to Ske

data was able to tease apart two types of reference which are typically classed as absolute FoRs. Within this revised typology Ske speakers are found to use an absolute FoR and a geomorphic FoR in locational and directional expressions, the geomorphic FoR having pragmatic functions and necessitating a shared knowledge of space. Different scales of space are also shown to impact the way Ske speakers express geocentric spatial references.

Other issues raised in the study include the need for naturally observed data to be collected in order to capture the range and subtleties of how speakers talk about space and how cultural change is affecting the way Ske speakers express and conceptualise the space around them and the entities that occupy it.

Acknowledgements

Embarking on a Field Linguistics PhD was relatively easy, but it was in the process of carrying it out and its completion that I gradually came to realise what an enormous task it was. There are many people without whose help this work would have been left to mould on a shelf and linger in files on my computer.

First of all many thanks to ELDP for approving the project and for supplying the grant to carry out the main part of the research. I also greatly appreciate the Leatherseller's Guild who provided invaluable funds in the final year of writing-up.

My two supervisors, Peter Austin and Irina Nikoleva, guided and assisted me with advice and ideas, made crucial comments on the thesis and encouraged me as the viva approached. There are many friends and colleagues at SOAS to thank too, for comments, corrections, encouragement, the loan of solar-power and other equipment, and of, course, for coffee: in particular Oliver Bond, Louise Ashmore, Sophie Rendina, Rados Voica and Mike Franjeh. Thanks to Tom and Bernard for their invaluable advice about recording equipment.

Outside of SOAS, I would mainly like to thank my mum, whose support went beyond the call of duty; from childcare, to accommodation as well as financial. The completion of the thesis in the last year is mainly thanks to her. Thanks too to Lee-Anne for looking after young Gil at a crucial time and Jen, Phoebe, Emily and my Sellack neighbours at the farm for hot-seating as babysitters too. Thanks to all my friends and family who went through it with me: Ben, Rob, Tat, Rich, Chad, Sian, Amy and many others in Brighton for distraction and keeping up of spirits. 'Life is what happens when you're making other plans' and indeed Oli, Gil and Nathaniel came along whilst my other plans were being made. Thanks to Oli for help in the final stages and Gil in particular for hindering me so much!

Of course without my Ske-speaking family and friends the thesis would have stalled from the outset. I was welcomed into the village and taken care of. I was lucky to have such a range of

skilled and enthusiastic people to help out. Thanks to Elder Cain, Pastor Timoti, Chief Willy, Jack, Martha, Minnie and Samuel, David and Ron, Naomi, Ernie and many, many others. Andrew Gray was incredibly helpful too both in making introductions between myself and the chief and with his insightful work on Ske and the surrounding languages.

Finally I would like to remember Lessian Tabi, my mum on Pentecost Island, who taught me how to prepare tiny crabs as bait and took me canoeing to fish for our dinner, showed me where to wash in the river, how to break and grate coconuts, how to cook using an earth oven, was my chief teacher of Bislama and an excellent instructor and commentator on Ske too, having learned it herself and being deemed the best non-native speaker of Ske by the chief. Without her and my adoptive family there: Jonas, Sanita, Tedi, JC and Rodrik, my stay in Pentecost would have been much harder and much less fun too. Lessian passed away in March 2013.

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List of Abbreviations

Abbreviations used in glosses

1	First person
2	Second person
3	Third person
ABL	Ablative
ADDR	Addressee
Adjunct	Adjunct
ALL	Allative
ART	Article
ASSOC	Associative construct
ANA	Anaphoric marker
BEN	Beneficiary
COM	Comitative
COMP	Complementizer
COMPL	Completive marker
CONJ	Conjunction
CONST	Construct suffix
COP	Copula
CL	Possessive classifier
DIST	Distal demonstrative
DP	Directional phrase
DR	Drinkable
DU	Dual
ED	Edible
EDHS	Edible hard-shelled fruit/nut
EMP	Emphasis
ES	Echo Subject marker
EXCLM	Exclamation
EXCL	Exclusive
FIRE	Fire
FUT	Future tense
GEN	General
GOAL	Goal
INCL	Inclusive
IND	Independent pronoun
INTR	Intransitive
INSTR	Instrument
IPFV	Imperfective Aspect
IRR	Irrealis
MULTIP	Multiplicative
NEG	Negative
NMLZ	Nominaliser
NP	Noun Phrase

O	Object
PFV	Perfective Aspect
PL	Plural
POSS	Possessive
PP	Prepositional Phrase
PRON	Pronoun
PROSP	Prospective tense
PROX1	Proximal Demonstrative (first of two)
PROX2	Proximal Demonstrative (second of two)
PURP	Purposive
Q	Question marker/particle
REDUP	Reduplicant
REL	Relativiser
RELC	Relative Clause
RT	Relative tense
S	Subject
SG	Singular
SOURCE	Source
SVC	Serial Verb Construction
SubjM	Subject marker
TR	Transitive
UTT	Addressee of utterance predicate
V	Verb
VAL	Value
VOC	Vocative
VP	Verb phrase
VRBLZR	Verbaliser
~	reduplication
=	clitic
-	affix

Abbreviations used for Consultants referred to in the study

ab	Alan Bule
bm	Bessie Mabon
cw	Chief Willie Tabi
cp	Chief Paul Tabi
dt	David Tabi
eb	Ernie Bule
ec	Elder Cain Tabi Lingkon
gm	Gaylee Mabon
ht	Hannah Tabi
hwt	Howad Tabi
it	Isak Tabi
jct	JC Tabi
jm	Joplin Matan
jt	Jack Tabi

jlt	Jill Tabi
lt	Lessian Tabi
mm	Minnie Mabon
mrtm	Martha Mabon
nb	Naomi Mabon
pt	Pastor Timoti Tabi
rb	Roger Bule
rt	Ron Tabi
st	Samuel Tabi
tt	Tedi Tabi
zt	Zachias Tabi

Chapter 1

Introduction: the Language, the Speakers, the Study and Space

PART I

Part One provides the sociolinguistic background to Ske and gives details of its genetic affiliation as well as setting the language in its local and national contexts. Details of how fieldwork was conducted on a daily basis and the methodologies followed are described in Part Two and in Part Three the research focus is introduced. In this final part also, the major frameworks and methodologies employed to investigate static spatial referencing in Ske are presented.

1.1 Language Profile

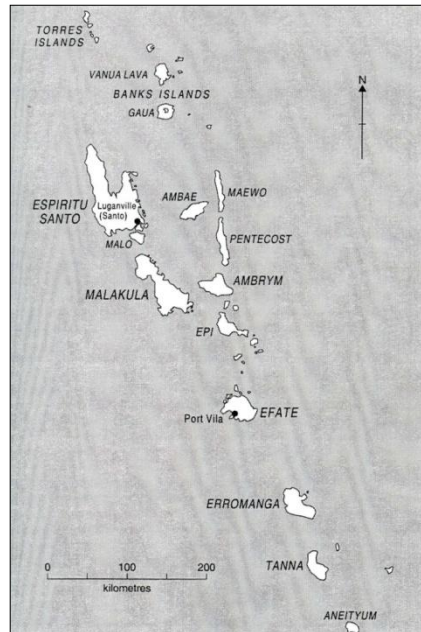
Ske is an Austronesian language spoken on Pentecost Island, central Vanuatu. Pentecost is one of approximately 83 islands which constitute the Republic of Vanuatu¹ (see Map 1.2). Vanuatu is located in the South Pacific, northeast of New Caledonia, west of Fiji and south of the Solomon Islands (Map 1.1)



Map 1.1 Map of Oceania

¹ Prior to 1980 Vanuatu was a condominium under the joint authority of France and England. The nationality of the indigenous Vanuatu is 'Ni-Vanuatu'.

Ske, or Seke as it is often found referred to², translates as the interrogative pronoun ‘what’, which is also the translation of the names of Pentecost’s other languages: Apma, Sa and Hano, also known as Raga.



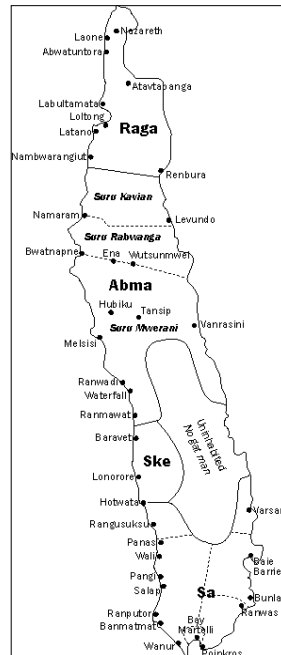
Map 1.2 Map of Vanuatu

Each of the four languages on the island exhibit some dialectal variation³, however in the case of Ske the other two variants of the language have all but disappeared; at the time I conducted fieldwork only two speakers of Sowa were living and one of Doltes⁴. The size of the Ske-speaking population was estimated at 600 by Lynch and Crowley (2001) living in the Ske area, stretching from Levizendam in the north to Hotwata in the south.

² Ethnologue (Grimes 1996), Lynch & Crowley (2001) and Tryon (1976) are among the sources that refer to Ske as both Ske and Seke. The language is pronounced with a consonant cluster initially by Ske speakers and so this is how I refer to it.

³ Cindy Schneider (forthcoming) writes about dialectal variation in Apma and wrote her PhD thesis on the grammar of the Suru Mwerani dialect of Apma (Schneider 2010). Sa, spoken in south Pentecost has dialects of Fa and Ha. Sowa was spoken at the northern border of the Ske area with the Apma area and Doltes (which translates as ‘small language’ in Ske) at the southern border with the Sa language.

⁴ Andrew Gray and I have made recordings of Sowa with Old Stephen at Ravsunmwel, near Waterfall village and Andrew reports he has some recordings of Doltes made in Hotwata. I attempted this also but the last speaker was unable to remember and spoke only Ske to me.



Map 1.3 Language Map of Pentecost (by Andrew Gray)

The northern part of Pentecost is more rugged than the south, with cliffs meeting the sea on the coast. The southern coastline on the western side is typically beach. The southern area has higher mountains, the highest of which, Mt. Vetnar, is found in the Ske area. In the uninhabited area shown in Map 1.3 which is towards the interior of the island from the Ske area, the land is rugged again and filled with gardens where families grow their food. It is cut across by broad rivers or streams, with waterfalls here and there. Broadly speaking, Pentecost is a long thin island with a mountainous interior: a central spine of peaks runs the length of the island and a journey to the coastline necessitates a number of ups and downs and crossings of rivers, rather than a smooth continuous downhill trajectory. The Pentecost coastline runs roughly north-south. The topography and orientation of Pentecost is important in the way speakers describe and navigate their way in the village and the island and is an important reference point in most conversations.

1.2 Genetic Affiliation

Ske belongs to the Central Eastern Oceanic sub-group of the Oceanic languages group, itself a branch of the Eastern-Malayo Polynesian group of the larger Austronesian

language family. Recent research places Ske within the Nuclear Southern Oceanic linkage which includes the languages of New Caledonia (Lynch 2000, 2004; Lynch, Ross & Crowley 2002). This grouping suggests it is closer to Apma and Sa than its northernmost Pentecost neighbour, Raga, which is placed in the Northern Vanuatu linkage. The classification is still uncertain however for reasons of both data availability and means of analysis.

Lynch (2004, 2001) describes the issues surrounding the sub-grouping of the Oceanic languages of Vanuatu and New Caledonia as the ‘Melanesian Problem’. The linguistic complexity of Melanesia is problematic for the genetic classification of languages in this geographical area creating issues such as determining ‘the nature and degree’ of the internal relationships between the languages. This is due to the sheer number of the languages in question, the heterogeneity of the languages and the number of speakers per language and languages per island⁵. Sub-grouping has been further confounded by the quality and quantity of data on which the hypotheses were formed⁶.

Analyses of sub-groupings in Oceanic languages have not shown clear cut divergences, typically represented by family trees, in all cases. Rather, a network of related dialects has diverged and this diversification of dialects has in turn produced different languages. This concept is termed ‘linkage’ and allows classifications to reflect where dialect differentiation (Ross 1998) is responsible for linguistic diversity of an area. Languages are innovation-linked without a clear point of division. This is as opposed to innovation-defined languages (Pawley & Ross 1995), which are usually represented as family-trees.

⁵ Melanesia is typified by many languages per island, the result being that in every few square kilometres many languages may be spoken (Lynch, Ross & Crowley 2002: 15). Such patterning has implications for the rate of spread and settlement patterns of the early speakers of the languages, and implications for the levels of language contact and borrowing, or indeed dissimilation processes.

⁶ Lynch, Ross & Crowley (2002) estimate that less than 10% of Oceanic languages are ‘well-described’ i.e. have more than a basic wordlist and are described by trained linguists. Language classification still therefore utilises wordlists such as Tryon (1976). Regarding these wordlists Lynch & Crowley (2001: 22) remark ‘many of the lexico-statistic figures have since been shown to be incorrect. Many of the wordlists were collected without any detailed knowledge of the languages in question, so error in transcription, meaning and grammatical segmentation have sometimes been incorporated [...] maps contain sub-grouping information on the same data and methods as Tryon (1976) and probably need to be treated cautiously, as do the language boundaries themselves’.

Bellwood et al. (1997) offer the following analysis of the situation: languages A, B, C D reflect one set of innovations, C, D, E, F, G another set of innovations, D, E, F a further set of innovations and G, H, I another. These languages are ‘innovation linked’ on account of the overlapping relations between them.

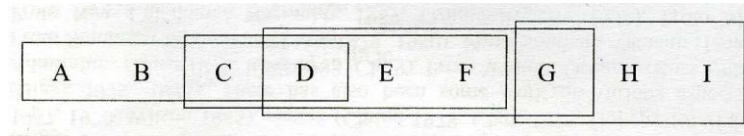


Figure 1.1 Representation of Linkages (Lynch, Ross & Crowley 2002:92)

Currently, the island of Pentecost poses a potential ‘boundary problem’ (Lynch 2004: 321), being dissected on language maps by a line through the centre, to signify that the northern and southern languages belong to different linkages. The nature of the groups bounded on either side of this line is still disputed and has been vexed by lack of data.

1.2.1 Sub-grouping of Northern, Central and Southern Vanuatu languages

Current sub-grouping hypotheses show that Ske belongs to a Nuclear Southern Oceanic linkage (Lynch 2004), but it was previously classed in a smaller Central Vanuatu group (Clark 1985). The basis for its current classification is still unsubstantiated for reasons which will be outlined below.

Sub-grouping hypotheses of the Vanuatu languages have produced differing analyses often with overlapping boundaries (Grace 1955, 1959; Pawley 1972; Tryon 1976; Clark 1985; Lynch 2000, 2004) as have those including New Caledonian languages (Haudricourt 1971; Geraghty 1989; Ozanne-Rivierre 1992). Different analyses have disagreed not only on the members of the sub-groups, but also on the names of sub-groups and how many sub-groups exist. The above analyses are coterminous in the following ways (Lynch 2004: 311):

- 1) the languages the Torres and Banks Islands, Ambae and Maewo belong in a northern⁷ Vanuatu sub-group,
- 2) the languages of Malakula, Paama, Epi, the Shepherds and Efate belong in a central group.

Two areas are conspicuously absent from the undisputed groupings above: Pentecost and Ambrym (which are geographically located between the groups in 1) and 2)); and Erromango, Tanna and Aneityum (which are located south of the languages in 2) and claimed to be both part of a Central group and a separate Southern group). This section is concerned with the first of these which incorporates the area around Pentecost.

Language classification in Vanuatu identifies a division between northern and central languages. A line delineating the boundary is drawn across the northern part of Pentecost, separating Raga in the north from Apma, Ske and Sa in the south. This is after analysis from Tryon (1976)⁸ and Clark (1985) which was based on cognate correspondences between the languages as shown in Table 1.1 below.

Even at the time of his study Clark, the originator of the boundary line, signalled that that the division between North Vanuatu and Central Vanuatu groups (across Pentecost) was ‘by no means sharp and future research may well require revision here’ (Clark 1985 in Lynch, Ross & Crowley 2002: 112). Subsequent typological studies and historical

⁷Orthographic conventions will apply here to cardinal/geographic points as follows: capital letters e.g. Northern Vanuatu sub-group refer to a named sub-group and lower case letters e.g. northern Vanuatu language to a geographical area only. This is to avoid confusion as the geographical terms ‘northern’, ‘central’ and ‘southern’ are also names of sub-groups.

⁸ The lexicostatistical data (Tryon 1976) show the degree of relatedness between the Pentecost languages and between those of other islands. Significantly, Tryon’s calculations find that Raga shares considerably more phonological and lexical information with languages to the north, on Ambae and Maewo ,than with its southerly neighbours on Pentecost. Table 1.1 shows the percentage of cognate correspondences between the languages of Pentecost with Lolsiwoi (Ambae), Baetora (Maewo) to the north and North Ambryn (Ambryn) to the south. The table claims to show that Ske’s closest relations are Sowa, Apma and Sa in that order. Tryon’s criteria for sub-grouping languages required that there were 50-80% cognate correspondence in the lexical data from the languages. On the basis of these figures, the New Hebridean linkages were established. Raga was found to belong to a sub-group of which it is the southernmost member, stretching across Ambae and Maewo and including the language Merlav spoken on the Banks Islands. Further south, Raga, Apma and Sowa, sharing more than 50% correspondences, also constitute a sub-group. In addition, Apma, Ske, Sowa and Sa form a sub-group as do Sa and North Ambrym.

reconstruction work on Vanuatu languages have led others to echo Clark's hesitation and to voice concern over the discreteness of the grouping and the place of Raga, which Clark again observed is 'uncomfortable with the North Vanuatu sub-group' (Clark 1985: 221 in Crowley 1991: 216) since it shares innovations with languages to the south.

Table 1.1 Cognate Correspondences between Pentecost Languages and some neighbouring ones⁹
(from Tryon 1976)

Baetora

68.3	Lolsiwoi					
62.3	58.8	Raga				
46.7	43.4	52.1	Apma			
52.2	49.6	46.3	59.9	Sowa		
51.2	49.4	51.1	64.6	77.4	Ske	
49.2	42.9	42.3	53.1	60.4	61.3	Sa
46.6	41.6	43.8	41.4	49.3	50	57.3
						N. Ambrym

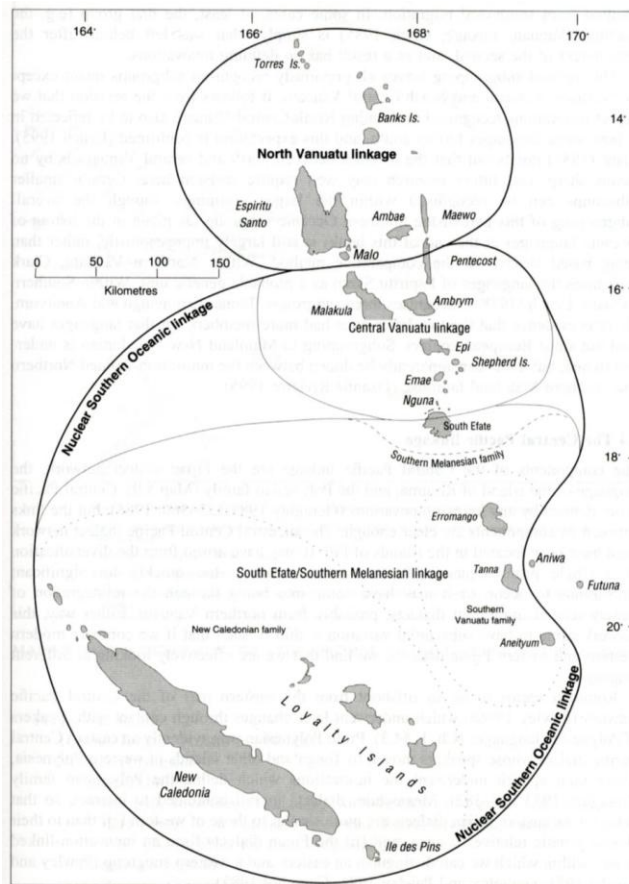
On the other hand, Lynch (2004) suggests that all the Pentecost languages may be more comfortable in the Northern Vanuatu sub-group:

‘The Central Vanuatu sub-group is normally taken to include the languages of Malakula, Ambrym, Epi, Shepherd Islands and Efate. In addition, some of the languages of Pentecost most likely belong to this group, though all Pentecost languages also share innovations with the (or ‘a’) northern sub-group exclusive of the central languages, making this a second ‘boundary problem’” (Lynch 2004: 321).

⁹ Raga and languages to its north are classed in a Northern group and Apma and languages to its south are classed in the Central group.

1.2.2 Pentecost Languages in the Nuclear Southern Oceanic Group

In a reappraisal of the validity of these groups, Lynch (2004) posits a ‘Nuclear Southern Oceanic linkage’ theory (NSO) which links the Central group at its northern boundary with Southern Vanuatu languages (those south of Efate) and those further south still ‘i.e., from Malakula, Pentecost and Ambrym through to New Caledonia’ (Lynch 2004: 313). Annotated maps of the NSO linkage show the northern boundary line passing through Pentecost, although Lynch concludes that the Central Vanuatu sub-group, is a ‘valid imperfect sub-group’¹⁰ (whose northern boundary needs further examination)’ (Lynch 2004: 331).



Map 1.4 Nuclear Southern Oceanic Linkage (Lynch 2004)

¹⁰ An imperfect sub-group results ‘when a chain of diverse dialects persists for long enough for some innovations to spread over the whole chain, in contrast to other innovations [that] spread over only parts of the chain’ (Pawley (1972: 130).

The innovations¹¹ relevant to Pentecost which Lynch (2004) uses to corroborate his NSO hypothesis are firstly those which link the Central group to the Southern group and secondly, those which separate the Central group from the Northern group. Data necessary to prove his hypothesis from Ske and the other Pentecost languages has been lacking until recently. Data from Ske suggests there is evidence to link the central and southern languages in favour of the NSO linkage theory.

1.3 Sociolinguistic Profile

In this section, the situation of Ske will be examined within the national and local contexts as well as from an historical and a current perspective. We look at issues past and present which affect the status of Ske including migration, religion and language and education policy in Vanuatu.

1.3.1 Local Context

At the northern and southern extremes of the Ske area language shift is taking place. At the northern extreme shift is taking place towards Apma, the neighbouring language, and Bislama, the national pidgin. At the southern extreme speakers are shifting to Bislama and Sa, the language spoken on the southern border. Ske is certainly under threat, primarily from Bislama and could be lost within the next few generations. Even the most fluent Ske speakers regularly make use of borrowings from Bislama. Villages in the central section of the Ske-speaking area are sparsely-populated and located at some distance from each other, but it is here that the language is spoken most widely. The most densely-populated village in this area is Bwaravet¹², where I lived during my fieldtrips. In this central area people of all ages speak Ske, however practice is different across different families, largely depending on where marriage to a non Ske-speaker has occurred. Amongst the older generation, people from non Ske-speaking backgrounds

¹¹ To link the Central and Southern languages the following are cited (Lynch 2004): Low Vowel Dissimilation (LVD) and article loss have occurred, and to separate the Central and Northern groups: verb-initial consonant mutation (see Chapter section 2.6.2); k-accretion in some pronouns; semantics of the copular verb **vei* (Chapter 2.3.6.2); plural marking (Chapter 2.4.5) and some lexical innovations.

¹² The spelling of Bwaravet here and throughout the thesis reflects its pronunciation by Ske speakers: the initial consonant is a labiovelar /b^w/. It is usually spelled Baravet.

who moved to the village when married were expected to learn Ske and many are deemed excellent speakers by the village elders. In contrast the current generation of parents from a non Ske-speaking background have experienced less pressure to become fluent and speak the language publicly. Whilst it is clear they understand and can speak Ske¹³, if required to participate in an exchange they may turn to Apma or Bislama to do so. In these families, children will mainly not have Ske transmitted to them as a first language, but often understand and speak the language more fluently than professed¹⁴. Amongst families where both parents are Ske-speakers, children are brought up speaking Ske primarily, but all are able to speak Bislama as well. There is pride in the language; native speakers are aware that Ske is thought by the other Pentecost language communities to be a hard language to learn and sounds different to the other languages on the island. Ske speakers are typically multilingual and will usually be able to speak Apma in addition to Ske and Bislama and sometimes Sa. The same is not so in reverse: it is highly unlikely that people from neighbouring language communities have even the slightest knowledge of Ske. On occasions which call for speeches, such as meetings or weddings, a Ske-speaker will often use Apma or Bislama as a courtesy where there are outsiders present, thus enabling them to participate. Groups of children will speak Ske to each other if the group consists of those deemed fluent speakers, but will switch to Bislama when there is a child who is not viewed as fluent¹⁵. This pride in Ske thus has its downfalls with respect to maintaining its vitality and dominance in all domains of speech. Having said that, Ske is the language of choice in church, village meetings and

¹³ In certain domains such as public meetings and in church, there is greater expectation that people should speak Ske. I have observed people speaking Ske in such situations who would, in a domestic setting, opt to speak Bislama since Ske is not their first language.

¹⁴ I was often told that specific children whose parents always spoke to them in Bislama did not know Ske, however they were more able than I was led to believe. One such situation occurred during an elicitation session: the grandfather of one of these children was telling her the Frog Story in Ske, the narrator made a mistake about one of the characters in the story and the young girl corrected him, in Ske.

¹⁵ A further example is that women from outside the Ske area who have learned the language since moving there feel embarrassed to speak if they are not totally fluent, even if they are highly competent.

in the nakamal¹⁶ and in 2009 the community instigated the opening of a kindergarten with Ske as the medium of education, in line with government policy, which has since gained national backing. The status and vitality of Ske may thus be re-asserted; it remains to be seen if the language will prosper in the new environment.

1.3.2 National Context

Vanuatu is noted for its rich linguistic heritage: a population of around 200,000 people¹⁷ speak approximately 100 languages¹⁸ giving an average speaker population of 2,000 per language. Whilst this calculation is interesting in that it underlines Vanuatu's rich linguistic make-up, it is not, of course, an accurate representation of the reality on the ground where the distribution of speakers is far less evenly spread. Populations of speakers range from 'a handful' (Lynch & Crowley 2001: 17) up to several thousands.

Calculating the number of languages spoken in Vanuatu is a mammoth task which has resulted in a variety of figures being presented¹⁹. The majority of languages, 57, are spoken by less than a thousand people. Only twelve of Vanuatu's languages have speaker-populations above 5,000. Table 1.2 presents languages grouped together by speaker population. It demonstrates that speaker numbers are not equally distributed

¹⁶ The nakamal is a building in most villages which is usually for men only. Kava, a drink made from the root of a local pepper plant (botanical family name: *piperaceae*, species *piper methysticum*), is made and consumed there. In Bwaravet I was not allowed to go into the nakamal when used for its daily purpose of preparing and drinking kava, so can only report what the chief and other men told me. I did attend village meetings in the nakamal however, and went to church, where the dominant language was Ske. Whilst it is possible this was done for my benefit, the population knowing I was studying the language, it was also made clear that for some time the elders had been concerned that Bislama would someday overtake the use of Ske in the village and had made speeches to this effect prior to my being there. As a result, there had been increased use of Ske in the settings mentioned. Unfortunately, many of the non-first language Ske speakers, particularly the women, informed me they felt an increased level of embarrassment since these awareness speeches had been made, feeling that their speech was so riddled with mistakes that they did not want to speak it publicly.

¹⁷ The 2009 Vanuatu Census calculates a total population of 234,023 and the World Almanac and Book of Facts (2006) gives an estimated 203,869.

¹⁸ Lynch & Crowley (2001) count 98 extant languages in Vanuatu, 81 of which are described as actively spoken, and the remaining 17 as moribund.

¹⁹ A commonly quoted figure is 105 languages, from Tryon's (1976) huge survey and lexicostatistical analysis of the languages of Vanuatu. Other estimates include 52 (Capell 1954); 109 (Grimes 1996); 110 (Tryon 1976); and 113 (Lynch & Crowley 2001). Errors in data collection, problems with language-naming and dialect analysis, as well as an increase in research on Vanuatu's languages have led this figure to be revised (Lynch & Crowley 2001: 104).

amongst the languages: the lower spectrum of the table contains the highest number of languages. Without accurate, diachronic census data detailing languages spoken by the population we can only speculate as to whether the distribution at one stage was more even or if these levels are stable.

The table shows smaller languages are the norm and Ske, with a population of 600 speakers, is a typically-sized language. That being said, Ske is atypical for Pentecost, in that it has a significantly smaller speaker-population than any of the other four surviving languages²⁰ on the island. Raga and Apma are particularly large languages with 6,500 and 7,800 speakers respectively²¹. The other language on Pentecost, Sa, has an estimated 2,500 speakers.

Population	499 or less	500-999	1,000-1,999	2,000-2,999	3,000-3,999	4,000-4,999	5,000 plus
Number of languages	33	24	16	6	5	3	12

Table 1.2 Language Population-size and Number of Languages in Vanuatu

(Adapted from Lynch & Crowley 2001)

In addition to the many indigenous languages, three other languages are spoken officially in Vanuatu: Bislama, an English-lexifier pidgin (Crowley 2000) is the lingua franca and national language and Bislama, French and English are the official languages of Vanuatu.

²⁰ There are reports of other languages and dialects of existing Pentecost languages that are now extinct. Unfortunately no records of these exist but some islanders remember a few words or phrases and attest to their having been larger speaker populations in the past. These are: Nggassai and Volvoluana, believed to be dialects of Raga; Doltes which may have been a separate language or a dialect of Ske; and Sowa, again either a separate language or dialect of Ske (Tryon 1976) or a ‘communalect’ of Ske (Lynch & Crowley 2001). Raga, a term which is the original name for Pentecost Island prior to the arrival of Europeans has also been called Lamalanga, Loltavola, Loltong, North Pentecost or Qatvenua. It is also known as Hano, the interrogative pronoun ‘what’. Similarly, the names Sa, Apma and Ske also correspond to ‘what’ in each language.

²¹ In fact, they are amongst the largest languages of Vanuatu: Apma is the 5th and Raga the 7th largest in the country. Lenakel on Tanna with 11,500 speakers has the greatest number of speakers (Lynch & Crowley 2001:6).

1.3.3 Socio-historical Context

The first Pentecost islanders are believed to have come from Ambae to the north²² and consequently settled Pentecost in a north to south direction. Foreign contact with the island during the late 19th and early 20th centuries came in the form of missionaries and European merchant navies. Likewise, increased contact with foreigners and different island communities was impelled by the establishment of missions, attracting the local population to resettle nearby²³. Bwaravet was settled only relatively recently, within the last two generations. The population moved towards the coast from inland areas and therefore transportation, communication and health and education centres became more accessible²⁴.

The centres and their respective religions continue to exert linguistic influence over Pentecost islanders in that affiliation with a particular church determines which of the official languages of education, English or French, is the designated medium of education for the area. In Catholic areas, French is the medium of education but elsewhere English is used. The Ske area now lies within a Churches of Christ area and education is largely conducted in English.

1.3.4 Language and Education in Policy and Practice

After independence in 1980, the Republic of Vanuatu's new constitution declared Bislama, English and French as official languages and granted Bislama the status of

²² Some cultural practices of the Raga community (e.g. traditional clothing) are more similar to those of islands to the north than to the Apma, Ske and Sa communities in southern Pentecost. Archaeological evidence shows that Melanesia was settled in waves of migrations from northeast to southwest. Linguistic research, combined with that of anthropologists and archaeologists, also points to the islands being settled in a north to south direction, from northern Vanuatu through the central and southern islands and continuing to New Caledonia (Bellwood et al. 1997).

²³ The west coast was largely colonised by French Catholic priests who set up a large mission at Melsisi and churches and schools at Tsinbwege. Bible translations and church services were in French and Apma. Anglican ministers established themselves at Bwatnapne. Later, the Presbyterian, the Church of Christ and Assembly of God churches made inroads in to the interior of the island at the centres Wutsunmwel and Naruwa. The central region is now largely associated also with Australian, New Zealand and North American Pentecostal churches (Schneider 2010).

²⁴ I recorded a lengthy interview between Elder Cain and Jonas where the history of Bwaravet, arrival of missionaries and other topics of local history were discussed. In it Elder Cain describes how Bwaravet was once a taro field and he built the first house there.

national language. Under the constitution, Vanuatu's local languages are guaranteed protection. Whilst the constitution does not make explicit how their protection is guaranteed, it requires that the Ombudsman²⁵ report to parliament annually on the 'observance of multilingualism and the measures likely to ensure its respect' (Early 1999: 13).

Prior to independence, a school's language of education was determined by its location in an area under either English or French administration. Since independence the system has largely been decided along religious lines. Despite its unifying role in national terms, Bislama is conspicuous in its absence from the education system, being in effect a 'banned language' (Lynch & Mugler 2002)²⁶. This official lack of support for Bislama is not upheld in practice: in kindergartens in urban areas such as Port Vila, Bislama is typically used as there is such an array of languages spoken by the children who attend the class. But even in rural areas, such as the kindergarten at Ranmawot which catered for Ske and Apma-speaking children, Bislama was sometimes used as the children would have problems understanding concepts and instructions in English.

In 1999 the Vanuatu government began investigating the extension of the compulsory six-year education policy to include a further two years of primary education²⁷. If the community so chose, these proposed early-years schooling were to be conducted in

²⁵ The Ombudsman is a constitutional office which must report on the Vanuatu language situation. The office lay vacant a decade after independence Early (1999:13-14). It is not known if this position is currently filled however currently local language issues are a high priority for the Ministry of Education (Richard Chambers, Education Consultant Vanuatu, p.c.)

²⁶ Although used in kindergartens on my visits to the one at Ranmawot on Pentecost Island, Bislama is not encouraged. However, teachers find Bislama practical when children come from different language backgrounds and find the medium of education is problematic for the younger children. Early (1999) reported that a preference for English at primary and secondary school level is perceived to result from its established dominance later: English was the only language in which tertiary education is possible and professions such as the law conduct training only in English. However, now there are French and English medium universities and bachelor degrees available in both.

²⁷ Such reforms were common across the South Pacific in a re-analysis of national, post-colonial identity and have been implemented to greater and lesser degrees across the area, and sometimes reversed (Crowley 1995).

vernacular languages and vernacular literacy would also taught²⁸. Language policy in Vanuatu during my period of research there changed on a regular basis as there was a quick succession of ministers for education when the government repeatedly lost votes of confidence and fell. When I spoke to the Ministry of Education in 2009²⁹ a plan to have vernacular languages as the first language of instruction in kindergartens and to introduce both French and subsequently English as mediums of instruction had been proposed. This was subsequently reflected in the National Language Policy of 2012 whose stated objectives are to support the development of bilingual education in French and English from Year 3 to Year 13 and to ‘recognise the importance of beginning education using children’s first language [and to] support the use of local vernacular languages and Bislama to fulfil educational and cultural needs’ (Vanuatu Baseline Survey 2013).

VESP, a design for an education project for early childhood education in Vanuatu, which has financial backing from UNESCO, AusAid and NZAid has recently been launched. At the time of writing the project is still out to tender, with the tender agreement due to be announced at the end of May 2013. Vernacular languages being the medium of education³⁰ for early childhood is a central part of the programme and will potentially run over 10 years.

Crowley (1995) provides a list of reasons why plans to use vernacular languages in schools should be approached cautiously if the plan is to achieve success, considering the spectrum of opinions the plan attracts from parents, officials and the expatriate communities. A number of those reasons listed by Crowley are particularly relevant to

²⁸ Motivation for the plan was two-fold: firstly educational, since imparting initial literacy in a non-vernacular language is ‘damaging to the child [...] and ultimately the country’ and secondly; for language maintenance issues (Crowley 1995: 38).

²⁹ I talked with Jenny James, then in charge of early childhood education, at the Ministry of Education in Port Vila in August 2009.

³⁰ The draft proposal ‘VESP design’ suggests that this should be done ‘where [a language is] codified’. Clearly this raises many issues, just one of them being the question of which language children from a language area which has not been ‘codified’ will be taught in. The programme aims to raise literacy and numeracy levels, increase access to schools for girls, boys and disabled children, and also focus on teacher training and school-based management.

the Ske community. Firstly, prior to the opening of the kindergarten in Bwaravet, Ske pupils attended a school in the Apma area. At post-kindergarten level, the nearest secondary schools are either in the Sa or Apma-speaking areas. While secondary schools in Vanuatu have a multilingual-student intake, under the education policy outlined above, communities could potentially opt for literacy to be taught in the local language, i.e. either Apma or Sa. Secondly, even with the new kindergarten, further complexities arise. Crowley (1995) enumerates the following linguistic requirements necessary to mitigate the probable complications involved in establishing vernacular literacy programmes: an efficient and acceptable writing system; regular exposure to a written form; published dictionaries; trained personnel literate in their language; and, a written literature. Prior to a few wordbooks by Catriona Hyslop and my work to develop the Ske orthography and produce prayerbooks³¹ in the Ske community, no such literature existed. Even so, in many of these areas, Ske is still severely lacking.

1.4 Previous Descriptions and Areal Research

Prior to my research, Ske was undescribed: no published records exist except for a few limited wordlists (Tryon 1976) of ‘dubious’ reliability (Lynch, Ross & Crowley 2002). Catriona Hyslop, as part of a literacy project for the Vanuatu Cultural Centre (Vanuatu Kaljoral Senta or VKS), worked on a number of languages around the country including Ske and made a short fieldtrip to Bwaravet where she devised an alphabet after making a sketch of the phonology. The VKS printed a few wordbooks resulting from this trip of bird, fish and tree names. There has been no anthropological or socio-cultural research made in the area, surprising given the high-profile cultural practice of land-diving³² in

³¹ Thanks again to Andrew Gray whose preliminary work on the prayerbook I was able to build on.

³² Land-diving is the precursor to bungee-jumping. Young men jump off towers with vines tied around their feet and plummet towards softened earth. It is a ritual associated with the yam harvest but has its origins in a domestic dispute, where a young woman ran away from her husband and jumped from a tree having tied vines around her feet; she survived but her husband who followed her without the vines did not. Land-diving occurs in South Pentecost towards the end of the wet season when the vines are less brittle and supple enough to stretch under the weight of the jumping men. Land-diving is a popular tourist attraction, subject of academic study and food for documentary makers. The story was recounted to me by Chief Paul on whose land the Ske land-diving takes place.

the Ske area. The Sa area to the south also has land-diving towers and researchers have visited this part of Pentecost to study the cultural mores and the practice of land-diving.

Other Pentecost languages have received more attention. In addition to the Tryon wordlists, Raga is the focus of some short grammar sketches (Walsh 2005; Crowley 2002) and folk taxonomies on ethno-botanical information (Walsh & Leona 1996; Walsh, Leona & Pond 2000). Murray Garde is conducting research on Sa³³ and Cindy Schneider completed her thesis on the grammar of Apma (Schneider 2010). Andrew Gray has recently published a book on Pentecost languages with a brief grammatical sketch and lists of useful phrases in each.

In recent years, a number of grammars of Vanuatu languages have been written including Paamese (Crowley 1982), Ura (Crowley 1999), North-East Ambae (Hyslop 2001), Araki (François 2002), Naman (Crowley 2006), South Efate (Thieberger 2006), Apma (Schneider 2010), Daakaka (Von Prince 2012). A grammar sketch of Bierebo with a focus on realis-irrealis distinctions (Budd 2010) and a grammar sketch of North Ambrym with a focus on possession (Franjeh 2013) have also been written. Sebastien Lacrampe is currently researching Lelepa. On a much wider scale, typological description of Oceanic language phonology, morphology and syntax are available in Lynch, Ross & Crowley (2002) and Ross (2004).

PART II

1.5 Fieldwork

Permission to conduct cultural fieldwork in Vanuatu is given by the Vanuatu Cultural Centre which approves projects that will be conducted ethically and benefit the local population by their receiving training or physical products or services as a result of the fieldworker's visit and expertise. The VKS has local fieldworkers across Vanuatu among whose responsibilities it is to act as points of contact for foreign fieldworkers. The Ske area is not represented by a fieldworker and contact was initiated with the chief via

³³ Murray Garde has worked on Sa for many years but secured a grant from ELDP to continue research in the Ha dialect area for the period 2012-2013.

Andrew Gray, at that time a teacher at Ranwadi school near Waterfall Village in Pentecost.

The VKS approved my two fieldwork trips and I lived in Bwaravet village for a period totalling 12 months between October 2007 and September 2010. In Bwaravet I stayed with Jonas and Lessian Tabi in a guesthouse the family had built for visitors.

Their house was full of children and grandchildren and typically one or two family members would also sleep in the guesthouse with me. There was a large table in the guesthouse kitchen I used to work at and this was also one of the places I met with consultants.



Figure 1.2 Lessian Tabi

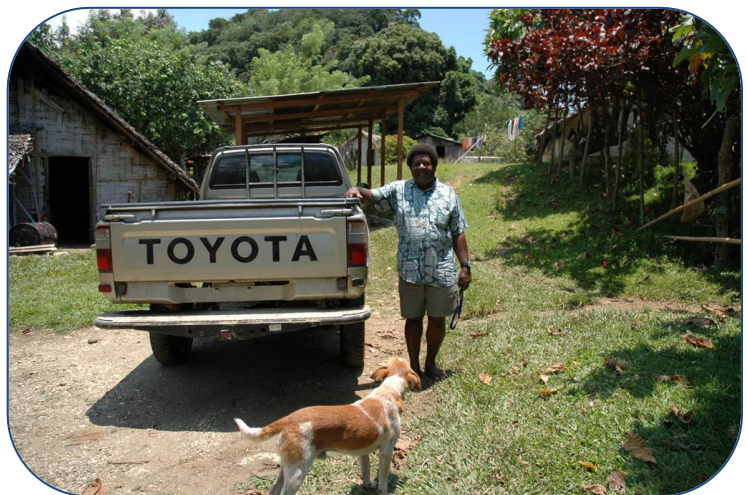


Figure 1.3 Jonas Tabi



Figure 1.4
Approach to Bwaravet
Village from the south



Figure 1.5
Lapse area of
Bwaravet Village



Figure 1.6
The Guesthouse in the
Vanabil area of Bwaravet



Figure 1.7
The Tabi Family's
Bush Kitchen

In addition to the family's sizeable bush kitchen, the family also used the guesthouse kitchen and its gas stove. We usually ate together either there or in the bush kitchen which was just a short walk from the guesthouse and family house.

The buildings, being close together and located at the entrance to the village, near family compounds with smaller kitchens, were frequently full of visitors. The kitchens are social places, rather than houses, so visitors would sit, chat, prepare food, make palm thatch roofing, or watch Jonas's son repair his truck outside.

Figure 1.8
The Guesthouse: to the right the road and the sea and to the left going downhill, the bush house kitchen and the river



The family owned a small store and there were thus also customers buying rice, tinned fish, paraffin or other supplies gathered around the Tabi family's village area within Bwaravet, named Vanabil.



Figure 1.9
With my brother Tedi in the store

Being with other people almost constantly was useful for work and my language-learning; I was able to observe a range of genres

of conversations, from interactions between Jonas and Lessian and their children, to visitors to their kitchen and exchanges in the store. In the early part of the first fieldwork trip I was still learning Bislama and with some people continued to speak Bislama during my whole stay. However, the majority of people attempted to speak to me in Ske after I uttered the first few stumbling phrases in the language. Harrison (2006) advocates the immersion technique of language learning for ethnographic fieldwork where research is carried out monolingually in the target language. This method has both benefits and drawbacks for data collection and analysis which will be considered further in the methodology section which follows. Learning Ske enabled me to collect data from observation, meaning methodology of data collection was not solely reliant on elicitation tasks. There were additional benefits to my speaking Ske: it seemed to please most Ske speakers, particularly my main consultants. I participated in the Tabi family's daily life, conducted more formal elicitation sessions in different settings and villages, accompanied many different people and families to their gardens or to their houses for meals or to make baskets.



Figure 1.10
Mike and Vinette's Church Wedding

Figure 1.11
Vinette's Traditional
Wedding: Vinette arrives at
her new house, as part of
the traditional ceremony.



I also accompanied villagers on fishing trips, went to church and attended some meetings and witnessed and sometimes recorded ceremonies from weddings to bride-price meetings to funerals. The fact I had a camera and video recorder even became desirable for the community as I was asked to record and photograph ceremonies in order to make DVDs and print photographs as keepsakes for community members.

Gradually I participated more and more in village life. I made food for the family, prepared dishes for fund-raising in the village and made donations to weddings. I was encouraged to participate at meetings relating to the vitality of Ske or the kindergarten and I organised orthography workshops with my main consultant, Pastor Timoti Tabi. Other activities included teaching basic computer skills in the village and being asked to be Father Christmas on Christmas Eve at the church.

Figure 1.12
Opening the new
airport at Lonorore,
South Pentecost



Eventually I was adopted by Jonas and Lessian Tabi and took part in an official village ceremony myself. At the end of my stay I was among the women representing the village to present visiting dignitaries woven baskets at the official opening of the airport attended by Pentecost islanders, other Ni-Vanuatu and foreigners. My role fluctuated between participant and observer through the course of the stay depending on various factors of the event I was involved in. There was no continuum from which I started as an observer and became a participant by the end of the fieldwork.



Figure 1.13
Preparing cakes with
the Bwaravet ladies at
the airport opening



Figure 1.14
Lessian dances
with the baskets
which the
Bwaravet women
are about to present
to dignitaries at the
airport opening

An initial concern was how I was to find consultants, but on my second day in Bwaravet, Pastor Timoti and Elder Cain arrived at the guesthouse door and informed me I would be

working with them. They were deemed to be two of the best speakers of the language by the chief, who was absent for the first month of my stay.



Figure 1.15 Pastor Timoti Tabi



Figure 1.16 Elder Cain Tabi Lingkon

After the chief arrived we extended the number of consultants. It was apparent that there was some anxiety on the part of the chief and my main consultants over who I should work with to give the ‘correct’ version of the language. This understandably purist view was relaxed over the course of my stay and the number of official consultants increased. Consultants were those who participated in elicitation sessions and who I recorded narratives or interviews with, or those who translated and transcribed recordings. Of course, observed data came from a much larger range of sources and most of the observed data in notebooks was checked with Pastor Timoti.

I worked mainly in Bwaravet and Ranror but also in villages spanning the Ske area from Levizendam and Lolmulmul to Bwaravet and the airport area south to Hotwata, either



Figure 1.18
On the coast road between
Bwaravet and Lonorore

walking with Pastor Timoti or another friend or consultant, but often riding my bike around between the villages and through the rivers.

During the first part of the fieldtrip I

focussed on working out a sketch of Ske grammar since there was no previous description of the language. It was important to build good relations with the community early on and I visited people and recorded traditional stories and narratives or simply sat in kitchens and practised listening to Ske. As my language skills improved so did the quality of observed language data I recorded. I increasingly accompanied villagers on trips in and around Bwaravet to hear language in use in varied settings and also I conducted spatial language elicitation tasks at this time, all to accumulate data on how Ske speakers refer to space.

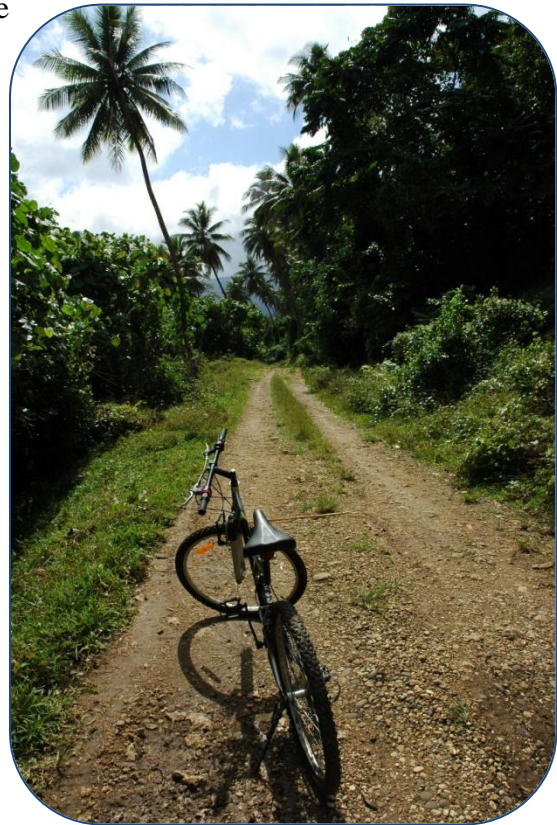


Figure 1.19
By bike along the coast road

Figure 1.20
Orthography
Workshop: some
translation and
transcription at one
of the orthography
workshops, with
Pastor Timoti
leading and Chief
Willy (in white T-
shirt)



Figure 1. 21
Chief Willy's
Nakamal in Valiamit:
with Pastor Timoti
and the chief's
extended family

Figure 1.22
Approaching
Captain Cook Rock
in South Pentecost
by cargo boat



PART III

1.6 Research Focus: The Study of Space

Why is space important? Spatial cognition is a fundamental aspect of human thought. It is a ‘design requirement for every mobile species with a fixed territory or home base’ (Levinson & Wilkins 2006: 1). Our ability to conceptualise the space we live in enables us to navigate between places, locate objects, negotiate our way across treacherous paths, manipulate tools, and gauge speeds and directions; it is necessary for survival. Human spatial thinking goes beyond this physical plane however, allowing us to abstract ourselves from the space we live in and recognise ourselves as objects and experiencers within a spatial, temporal world. In the Kantian perspective, the nature of spatial thought in humans is a key ingredient of what is required for self-consciousness.

The importance of spatial thinking is apparent also in the variety of situations which we conceptualise with metaphorical spatial language and concepts (Lackoff & Johnson 1980). These include:

- thinking about time (before the altar vs. before tomorrow)
- kinship (distant relatives, closest kin)
- social structure (low class etc.)
- music and sound (high notes, flat notes)
- mathematics (high and low numbers, graphs and curves)
- emotions (high, depressed, lonely)
- just about anything (the peak of a career, after his illness he went downhill etc.)

Having established it is a universal characteristic of humans to think spatially, it remains that aspects of human spatial cognition seem ‘puzzling’ (Bennardo 2002) since it is universal, yet variable: taxi drivers, the average office worker, city and country dwellers have different landmarks and scopes at their disposal. It is also developmental: young children able to perceive themselves as an object reflected in a mirror have greater ability

to interpret spatial information than toddlers (Eilan et al. 1993; Senft 2004: 12)³⁴. In studying other languages, it becomes apparent that developmental differences and the scope of spatial thinking are not the only variations in the ways that humans conceptualise space: the frameworks with which humans conceptualise landmarks, distances and movement also vary considerably.

1.6.1 Approaches to Studying Space: Variations, Universals and Rethinking Relativity

The history of the study of language reflects the preferences and priorities of the intellectual traditions of the time. Research methodologies and the goals envisaged have approached the relationship between language and cognition in radically different ways. Recent rethinking about how to study linguistic and cultural diversity are informed by these earlier approaches. In this way, variation is studied and a more representative picture of semantic and structural typologies of languages is constructed.

In the first half of the twentieth century, intellectual discussion was founded on extreme empiricism, stemming from the centrality of the nativist, Lockeian concept of the *tabula rasa*, the blank slate of the human mind upon which all experience was inscribed. The Humboldtian perspective of the *Weltanschauung*, where each language presented a unique ‘world view’, set the theme for the linguistic relativist interpretation of differences in language and culture being reflections of profound cognitive differences (Gumperz & Levinson 1996). In order to understand human nature and cognitive processes, empirical study was necessary.

At this time sociolinguistic research concentrated on variation in language and dialect variation due to geography, class and gender. Linguist-anthropologists Whorf and Sapir pioneered ethnographic investigation of languages in context from a relativist perspective to find how patterns of languages ‘culturally ordained’ the way a person

³⁴ See child spatial acquisition studies in Chapter 5 (Eilan et al. 1993). Also Senft (2004: 12) quotes from child spatial acquisition research regarding the order in which locative terms are acquired and the speed with which children adopt language-specific principles.

communicates, analyses the world around them and builds their ‘house of consciousness’ (Whorf 1956: 252 in Gumperz & Levinson 1996: 22). At the heart of the relativist approach was the belief in the absence of correlations in the cognitive patterns of different cultures: the possibility that ‘semantic structures of different languages might be fundamentally incommensurable, with consequences for the way in which speakers of specific languages might think and act’³⁵ (Gumperz & Levinson 1996).

Research which found evidence of semantic universals (colour terms and arguably, kinship terms) questioned the relativist and determinist perspective and provoked interest in universal semantic concepts and structures. In contrast to the first half of the century, linguistic research in the second half of the twentieth century has been influenced by the rise of cognitive sciences and characterised by extreme rationalism.

Current approaches to linguistic research, where this study is located, attempt to re-negotiate an ‘intermediate position’ in the relationship between what is known about universals and the variation which is found in language (Gumperz & Levinson 1996). Increasing attention is given to meaning in discourse and the appreciation that systematic use of language is as much responsible for its interpretation as are its underlying structures.

Levinson (1992: 7) suggests that ‘a proper appreciation of one of the most striking specialisms of human cognition, namely its culture-acquiring capacity’ has been overlooked. When humans acquire new ‘cultures’ i.e. new environments or new technologies, systems of referencing space may alter. ‘[A]s the degree to which the spatial environment is man-made increases, the size of the spatial deictic system increases’ (Denny 1985 in Senft 2004: 9). Recent interdisciplinary research spanning developmental psychology, linguistics and anthropology (Dasen & Mishra 2010) has begun addressing this issue and suggests methods of conceptualising and describing space may alter when we become accustomed to a change in environment or education, among other factors.

³⁵ This quotation is variously attributed to Humboldt or Whorf and Sapir (Gumperz & Levinson 1996)

Many questions remain, however. Which cultural elements are acquired and which are innate? How can we formulate a semantic typology for the ways in which humans conceptualise space? What are the consequences of different encoding methods of spatial information on the way different spatial events are perceived, and vice versa? What occurs when a new ‘culture’ is acquired? How does cognition affect language or, language affect cognition? The question is, for Bohnemeyer & Levinson (2011) ‘to what extent is the fact that we are a culture-bearing species a crucial element in our psychology? Do we, for example, have different minds by virtue of the different cultures we inhabit?’³⁶.

Levinson and Wilkins propose that the psycholinguistic study of human spatial cognition is essentially ‘a good area in which to rethink the whole relation between the biological and the cultural endowment in human thinking’ (Levinson & Wilkins 2006: 7). They provide three reasons for studying spatial expressions in language. These are, in brief:

- 1) to help reveal the underlying universal conceptual structure of human spatial thinking as reflected in spatial language,
- 2) to provide an insight in to the possible cultural variability of spatial thinking,
- 3) to look for linguistic universals and cultural divergences in order to assess whether cognition is driving language, or vice versa.

In the same way that Western intellectual traditions have dominated discussion of language and cognition, so has the study of Indo-European languages informed theories of language which are claimed to have universal status. Fieldwork on under-studied languages has an important role to play in broadening the scope of cultural and linguistic information needed for further research in this area. Oceanic languages are a particularly

³⁶ They go on to cite evidence from studies on brain plasticity, variation in navigational skills, literacy and child language acquisition, dancing and music, which reveal that different experiences can affect brain function (Bohnemeyer & Levinson 2011: 3).

fruitful area for cognitive linguistics: comparisons between Oceanic and broader Austronesian spatial referencing systems, as well as within Oceanic systems themselves ‘allows conclusions to be drawn about the way in which particular elements of a system have been modified or adapted to fit new topographic and geographic environments encountered by ancestral communities’ (Palmer 2002: 142). This is especially relevant for Pacific islanders whose migrations paths have taken them across huge swathes of sea to uninhabited islands, varying in shape and topography, which they then settled in. The result being that the languages of these groups had not been modified as a result of borrowings or contact.

Studies of spatial system in non-Indo-European languages have caused us to revise previously held notions of the structural and semantic universals of spatial information. Kant regarded the dividing of spatial thinking into left and right as universal on the basis that all humans recognise left and right sides of the body. Research into spatial thinking and speaking shows this to be untrue (Levinson & Wilkins 2006; O’Meara & Báez 2011; Senft 1997; Bennardo 2002). Studying spatial systems of languages may also be useful for language classification. François (2004) identifies four hypothesised stages of development and re-alignment of Oceanic language geographic axes used for spatial referencing and concludes that not only does this build a cohesive picture of the seemingly large range of referencing systems, but it could also be useful for tracking migration paths of speakers and for assessing the genetic relatedness of languages.

Research done on the variation in human spatial expression and thinking is but one of many domains³⁷ which informs work on the language-cognition interface: we think the way we speak but do we speak the way we think? Is language an instinct (Pinker 1994) or is it ‘culturally-ordained’ (Everett 2008, 2012). Analysis of such work is often headline-grabbing and tops best-seller lists. The topic of to what extent human-thinking operates independently of the structures of one’s language or environment is ongoing in

³⁷ Developmental psychology, music, dance and vision, and literacy, are only some areas mentioned in Levinson & Bohnemeyer (2011) which delve into language and non-linguistic cognitive research.

scholarly articles where it is hotly-debated (Levinson & Bohnemeyer 2011; Li et al. 2011).

An in-depth report on the effects of language on cognition of Ske speakers is beyond the scope of this research, although we find that this is a common thread running through the empirical chapters. The frameworks researchers use to produce this data, as well as some of the methodologies,³⁸ are also used in this thesis. Frameworks are described below, and methodology in the section to follow.

The main goals of this thesis are to examine what the semantic parameters of static spatial expressions are in Ske. When Ske speakers choose a locative predicate to describe a simple scene of house on a hill, what is informing that choice? What factors do they have to take into account to make the selection? What is the functional load of deictic language in Ske, are deictic references a unique strategy in Ske and independent of the need for gesture? When Ske speakers give seemingly contradictory directions to a place, uphill at one time and downhill at the next, what reasons underlie this apparent anomaly? How and why are these alternative strategies selected? We also comment on the over-arching theme of cultural change, cognition and language. How does the selection of certain cognitive strategies and linguistic expressions to locate entities reflect the changing culture and experience of the Ske population?

1.6.2 Frameworks for Analysis

1.6.2.1 Topology and Frames of Reference

The main frameworks used in this thesis are those for describing Topological Relations and Frames of Reference. They describe sub-types of spatial events. Spatial events are categorised primarily as either static or motion event as shown in Figure 1.23.

³⁸ Often the methodologies linguists and psychologists use to explore the effect of language on cognition in the domain of space are with elicited tasks alone, such as the MPI stimuli games, which I describe in the methodology section of this chapter and in more detail in Chapter 3.

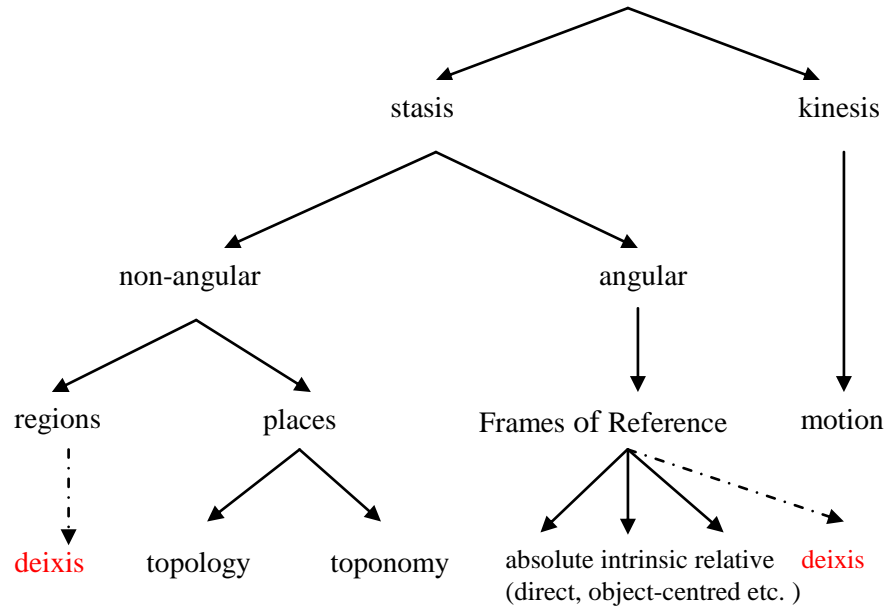


Figure 1.23 Conceptual Subdivisions for the Spatial Domain
(adapted from Levinson & Wilkins 2006: 3)

Broadly speaking, spatial events can be split into two conceptual sub-types: static events and motion events, as shown above. The focus of this thesis is the former: static events. The question asked here is how do Ske speakers describe the location or orientation of non-moving entities in space? Or, using Talmy's (1985, 2000, 2007) terms for isolating the semantic elements of an event, how is the Figure, a 'moving or conceptually movable object whose path or site is at issue' located or oriented with respect to the Ground, a 'reference frame or stationary object within a reference frame' in Ske.

Static events can be divided into two further types: angular and non-angular. Non-angular events describe the spatial relation between a Figure and Ground which requires no co-ordinate system to locate or orient the Figure, such as 'the cat is on the mat'. The framework they are described in is Topology. The type of relations considered as topological are *inclusion*, *overlap*, *contact* and *proximity* or *distance* following Piaget & Inhelder (1956). Thus, semantic notions like NEAR, AT, BETWEEN, IN, ON³⁹ are

³⁹ Semantic notions will capitalised, e.g. 'ON' to distinguish them from the manner of encoding, as in the English preposition 'on'.

called topological. Topological events and how they are expressed will be discussed in Chapter 3 and Chapter 4.

In contrast, angular spatial events are those where a co-ordinate system is used to locate the Figure. Here, we take a perspective from a particular reference point from which a search domain is projected. These co-ordinate systems are called Frames of Reference (FoR), as developed in Gestalt psychology (Smith 1988). For instance, we could say, *the chair is in front of/north of the house*; here the ‘chair’ is the Figure, the ‘house’ is the Ground, and ‘in front of’ or ‘north’ represent different strategies for locating the Figure using the direction from which the search domain is projected and the location of its origin. These two examples therefore belong to different Frames of Reference. Levinson (1996a, 1996b, 2003) identifies three Frames of Reference used to locate or orient a Figure in an angular spatial event: intrinsic, relative and absolute. More recent work (Bohnenmeyer 2011; O’Meara & Báez 2011; Danziger 2010) have offered a finer-grained distinction between these frames and include object-centred, and direct, amongst others, which are found in this study to be important distinctions made by Ske speakers and will be discussed further in Chapter 5 and Chapter 6. It should be noted that in Figure 1.23 above, deixis is placed under both the angular and non-angular categories. The Figure thus reflects that in traditional FoR typology deixis was classed as a type of non-angular reference, but that this study finds evidence to support its being classed as a FoR strategy and therefore a type of angular reference.

In Levinson’s set of frames, an intrinsic FoR involves a binary relationship between a Figure and Ground (relatum), where the Figure is located by means of a search domain projected off a named facet of the Ground; an example using ‘the ball’ as the Figure, is *the ball is in front of the chair* where the named facet of the chair is its front. The use of the intrinsic frame requires that, in the understanding of the speakers, the Ground object is able to be partitioned into facets. There is significant cultural variation⁴⁰ on what entities can have front or backs and there are various methods of determining the

⁴⁰ For example when a figure is turned upside down, what is deemed the top and bottom may remain the same or change. Tzeltal and Tzotzil, Mayan languages, map animal parts on to objects so that an inanimate object such as a teapot can have a head, tail back or front (Brown 2006).

intrinsic features of an object. Criteria⁴¹ used to allocate a ‘front’ to an object can be, for example, assessing the foremost part of a vehicle when it moves, or the side from which one enters a building. When an entity with an inherent front, such as a house or a person is the relatum or Ground, an intrinsic frame of reference can describe the Figure as being or moving *in front of the person* or *behind the house*.

A relative frame of reference needs a third component: a Figure (referent), the Ground (relatum) and also a viewpoint. Here, the viewpoint’s origin is the observer; the observer’s axes are mapped onto the Ground object so as to derive a front, back, left and right. In the case of *the ball is in front of the tree*, the tree’s front is thus derived from the observer’s front.

These mappings can be made in different ways. The tree’s front may be ‘facing’ the observer, as if observer and tree are confronting one another, like looking in a mirror. Alternatively the tree’s ‘front’ could be the opposite side to the observer, as if they are both facing identical directions; the tree’s and the man’s orientations are identical and both their ‘fronts’ are looking the same way so that the tree’s ‘back’ is in front of the man’s face (Levinson 2003). In this way, the tree’s ‘front’ is the opposite side to what it was for the first mapping. Languages may incorporate more than one mapping strategy. They may also use identical terms in the relative frame as in the intrinsic frame, such as English ‘front’ and ‘left’, which can have intrinsic and relative meanings. This leads to ambiguities in configurations where Figure or Ground is faceted: for example, in *the tree is left of the man*, it could be the observer’s left (relative) or the man’s left (intrinsic) which is the intended interpretation; the outcome being that the tree is on different sides of the man. It may be clear from the structure of the phrase which interpretation is correct. Some languages may require possessive-marking on faceted, intrinsic terms,

⁴¹ Criteria for deciding facets are: ‘canonical orientation of the object, functional orientation, normal direction of motion, characteristic orientation of the user, etc.’ (Levinson & Wilkins 2006: 21).

such as part-whole relations or relational nouns typical of Oceanic languages or meronyms in MesoAmerican languages⁴².

According to Levinson's interpretation, if the site or path of the Figure is described in terms of a fixed bearing which is known by and available to speakers, such as cardinal points (north, south, east or west) or a geographically salient landmark (mountain, sea, uphill or downhill) or ad hoc landmark⁴³, the FoR used is called 'absolute'. Sources for absolute co-ordinates may come from the cardinal-point compass, the solar compass, sidereal motion, mountain slopes, river drainage direction, wind direction or even a fusion of these sources (Levinson & Wilkins 2006: 22). The important factor is that speakers have internalised these co-ordinates and established the range of the horizontal arc along which, for example, 'north' or 'mountainwards' holds true. Whilst 'north' is an available term to English-speakers it does not follow that a competent speaker would locate a chair by describing it as being *north of the table*, but this would be a viable option where the absolute FoR is an available system. Recent work on FoRs have categorised co-ordinate systems which use the types of bearings described here under the umbrella term of geocentric FoRs, of which the absolute FoR is just one. The focus of Chapter 6 is the Geocentric Referencing System in Ske and here I discuss these distinctions and how they apply to Ske in detail.

A final point to be made on FoRs is that languages may use all or one system and languages may also place different restrictions on how or when a particular FoR is used. For example, a different FoR may be used across different distances or scales of space, or in familiar or less familiar space, or depending on the entity in the configuration. This variation in FoR usage; the motivations for there being a dispreference for a particular FoR; and the procedure for selecting one FoR over another is an area of ongoing

⁴² The MesoSpace project hypothesised that the productive system and large number of meronyms in MesoAmerican languages was a factor in their dispreference for the relative FoR (Danziger 2010, O'Meara & Báez 2011 etc.)

⁴³ Senft (2006) describes consultants' use of 'the village' and other landmarks as 'ad hoc' when using the absolute FoR to describe spatial orientation of objects in Kilivila.

scientific interest which has wide-reaching implications for patterns of cognitive diversity and linguistic expression. This issue is also also highly relevant here.

Senft (1997); Bowden (2003); François (2003); Ozanne-Rivierre (2003) and Ross (2004) discuss these issues in relation to Vanuatu languages and other members of the Oceanic family and Chambers (2010) in relation to Kubokota spoken in the Solomon Islands.

1.6.2.2 Deixis

Deixis has traditionally been excluded from FoR typology but is widely-acknowledged as constituting another important means of framing the conceptual notion of direction and motion. (Lyons 1977: 63) defines deixis as ‘the location and identification of persons, objects, events processes and activities being talked about, or referred to, in relation to the spatiotemporal context created and sustained by the act of utterance and the participation in it, typically of a single speaker and at least one addressee’. Anderson & Keenan (1995: 260) describe deictic expressions as ‘those linguistic elements whose interpretation in simple sentences makes essential reference to extralinguistic context of the utterance in which they occur’ and Levinson (1996: 36) says ‘deixis is the way parameters of the speech event enter into the interpretation of linguistic expression’ and defines three such areas: central, compositional and as optional origo⁴⁴. Deixis generally falls into three categories or ‘kinds of pointing’: personal (*I, you, him, they*) spatial (*here, there, come, go*) and temporal (*today, this week, last year*) but may also include discourse (anaphoric and cataphoric reference) and social deictic cues. Deixis is thus a major feature of spatial description and there is debate as to whether deixis is a separate

⁴⁴ ‘[C]entral’ when deictic demonstratives or adverbs such as ‘here’ or ‘there’ are used; ‘compositional’ when a well-formed spatial description is added to with a deictic: *the cup is at the side of the table* AND *the cup is at this side of the table*; and ‘optional origo’ where a speech participant is the origin of co-ordinate system, such as *the ball is to the left of the tree (from where I’m standing)*. This of course appears to be the relative Frame of Reference. Danziger (2010) in a fine-grained classification of FoRs distinguishes between ‘direct’ and ‘object-centred’ descriptions in a fourth FoR where the speech participant is or is not part of a binary relationship (such as *in front of me* or *in front of the kettle*). These issues are discussed in more detail in Chapter 5 where we use the term ‘composite FoR’ in acknowledgement of Levinson’s term above to describe a well-formed spatial expression which is added to with another spatial reference.

FoR (Danziger 2010; Palmer 2002a; Ashmore, forthcoming). According to Levinson, deixis is almost ubiquitous: ‘most sentences are deictically anchored, that is, they contain linguistic expression with inbuilt contextual parameters whose interpretation is relative to the context of the utterance’ (Levinson 1996a: 219)⁴⁵ and ‘deictic elements of meaning creep into all sorts of spatial descriptions’ (Levinson 1996a: 359). Despite this, incorporating deixis into traditional Frames of Reference typology has been problematic (Pederson et al. 1998; Levinson 1996, 2004) and recent work (Danziger 2010; Terrill & Burenhult 2008) has begun to address this issue. In this study, deictic spatial relators (demonstratives and deictic directionals) are investigated for their role in spatial descriptions and considered as being strategies of a fourth FoR, the Direct FoR (Danziger 2010).

1.6.3 Tools for analysis

Below is a brief description of some primary research tools for the investigation of static spatial events in this thesis, i.e. elicitation tools. Elicited data was only one method for collecting data (see Methodology in section 1.8 of this chapter). We discuss tools for investigating non-angular spatial expression first and singular spatial expression following that.

- **Tools for analysing non-angular spatial expression**

Linguistic encoding of spatial events varies across languages. In order to compare how surface elements express the same meaning, Levinson & Wilkins (2006: 15) suggest that ‘functional equivalents’ should be compared, starting with the Basic Locative Construction:

“Since all languages appear to have Where-questions, we can use this as the functional frame: we will call the predominant construction that occurs in response to a

⁴⁵ Fillmore’s (1982) example of a ‘totally-unanchored occasion sentence’ provides an idea of the extent to which context-dependent deictic information is necessary: imagine the situation of finding a message in a bottle, floating in an ocean, which reads: ‘Meet me here at noon tomorrow with a stick about this big’. The information begs the questions: who, where, when and how big is ‘this’?

Where-question [...] the basic locative construction or BLC for short.” (ibid.)

The BLC in a language is the typical manner of expressing topological relations. Not only are the BLCs of languages expressed differently, such as the copular plus preposition of English or the postural verbs of German, but restrictions on its use vary. The prototypical BLC in a language occurs when there is ‘a movable entity in contiguity with the ground’ i.e. *the cup is on the table*’ (Levinson & Wilkins 2006:16). In other non-angular static spatial events the BLC may not be used; the event is expressed instead with alternative structures. Levinson & Wilkins (2006) have found that spatial events can be ordered according to the likelihood that the BLC will be used.

The BowPed Topological Picture Series (MPI Stimuli 1994) is a set of images representing topological events of the kinds found along the BLC hierarchy and was a useful tool for primary investigation of topological relations in Ske. The set of supplementary pictures for Containment and Support, also developed by the MPI were used as well. Findings on the semantics of postural verbs used in the Ske BLC and the scope of the BLC with respect to the hierarchy, as well as the alternative constructions that are used when the BLC is not available are presented in Chapter 3 where the principal linguistic resources for angular and non-angular spatial expression in Ske are outlined. In Chapter 4 we focus on the obligatory elements of the Ske BLC, which are the set of locative predicates.

- **Tools for analysing angular spatial expression**

For initial research into Frames of Reference use, I employed the Men and Tree set of stimuli pictures (MPI Stimuli 1993) There are three sets of pictures and one ‘trainer game’ envisaged as a practise set of pictures to enable consultants to become accustomed to the game and what was required of them. The Men and Trees game is a structured elicitation session which involves interaction between speakers to propose, check and corroborate the location and orientation of a man in relation to a tree or other landmark. It was developed to investigate Frame of Reference. The photographs in the set involve

structured oppositions of relative positions which necessitate that the speakers give detailed spatial information in order to disambiguate the pictures. Two similar pictures are shown in Figure 1.24 below where a man and a tree feature in each, but the way they are configured is slightly different.



Figure 1.24 Men and Trees Pictures (Game 2 pictures 4 and 5)

The ensuing discourse is analysed to find how speakers describe the oppositions and which Frames of Reference are used. The elicitation tool and results are discussed in more detail in Chapter 5.

1.7 Research aims

Regarding non-angular location, this study will:

- identify the Ske BLC and what it codes along the BLC hierarchy;
- identify which structures are available to Ske speakers to express notions the BLC does not cover and ascertain why the BLC does not express these notions;
- establish the set of locative verbs in the BLC, what they code and what motivates their selection;
- establish the other locative forms (for example relational nouns) also found in non-angular spatial expressions and identify what they express their restrictions.

Regarding angular location, this study will:

- investigate preferences between Frames of Reference used by Ske speakers;
- identify the motivations for the dispreference of the relative FoR;

- examine the role of deixis as a strategy to locate entities in space in a structured framework;
- examine how deictic, absolute and other FoRs interact and combine in a structured framework.

Regarding geocentric referencing in Ske, this study will:

- establish how geocentric referencing operates in different scales of space;
- identify how direction and location along the vectors or axes is lexified;
- establish in what situations the different scales are preferred and identify how their salience is decided ;
- examine where the system is undergoing change and propose reasons for why this is occurring.

1.7.1 Key Findings

Below are the key findings from the study in brief, more detailed findings can be found in the summary sections of the empirical chapters and in the conclusion.

- Cross-linguistic analysis of locative verbs find that in languages which employ postural verbs such as ‘sit’, ‘stand’ and ‘lie’, their selection predominantly depends on the shape or axial properties of the entity whose location is being described. Study of the Ske locative predicates finds that ‘support relations’ between the Figure and the Ground take the motivating factors in their selection.
- Deictic reference is found to be a distinct strategy with projective functions and can function alone to locate or orient Figures in what is called a Direct FoR. Deictic spatial relators are ‘compositionally promiscuous’ and can combine with geocentric and intrinsic/object-centred FoRs but only when a facet of an entity in the intrinsic/object-centred FoR does not refer to an asymmetry.
- The large number of relational nouns, in addition to deictic and composite FoRs, are key to understanding Ske speakers’ dispreference for the relative FoR.

- In spatial reference which makes use of geocentric FoRs, three scales are found to be in operation: one on a large scale, on medium and one in local (familiar) space. On the local scale the land-sea axis rotates by 180 degrees to indicate entirely opposite directions when using the same terms, such that ‘uphill’ can mean ‘downhill’. This occurs as the Ske geocentric system functions using absolute and geomorphic FoRs.
- Strategies for expressing events using angular and non-angular strategies are undergoing change, which is found to be as a result of various cultural factors such as the introduction of new technologies.

1.8 Methodology

The framework for how research was conducted during fieldtrips was grounded in language documentation and description theory (Himmelmann 1998, 2002; Woodbury 2003) which advocates the use of a ‘large and varied’ corpus of language data as a base for language analysis. The size of the corpus matters to provide evidence of typical language use from a variety of speakers. In fact, in theory, the larger the corpus, the better, but this is clearly problematic for effective use of the material as transcription, translation and annotation is time-consuming. A large and varied-enough corpus to be called representative and at the same time one that was not so large as to make it impossible to handle and draw examples from, was collected. Woodbury (2003), showing similarities with the Ethnography of Speaking framework (Hymes 1962) introduces a range of speech event types along a continuum, from planned to unplanned speech, which language documenters should aim to capture in order to build a representative sample of the variety of speech-event types a community enacts or participates in. To this end, I endeavoured to include in the corpus as many speech-event types as possible; recordings of ceremonial speech to conversations to exclamations are represented, however, the naturalness with which they were recorded varies.

Firstly, let us look at Himmelmann's (2002) scale of naturalness before returning to the issue of genres of speech.

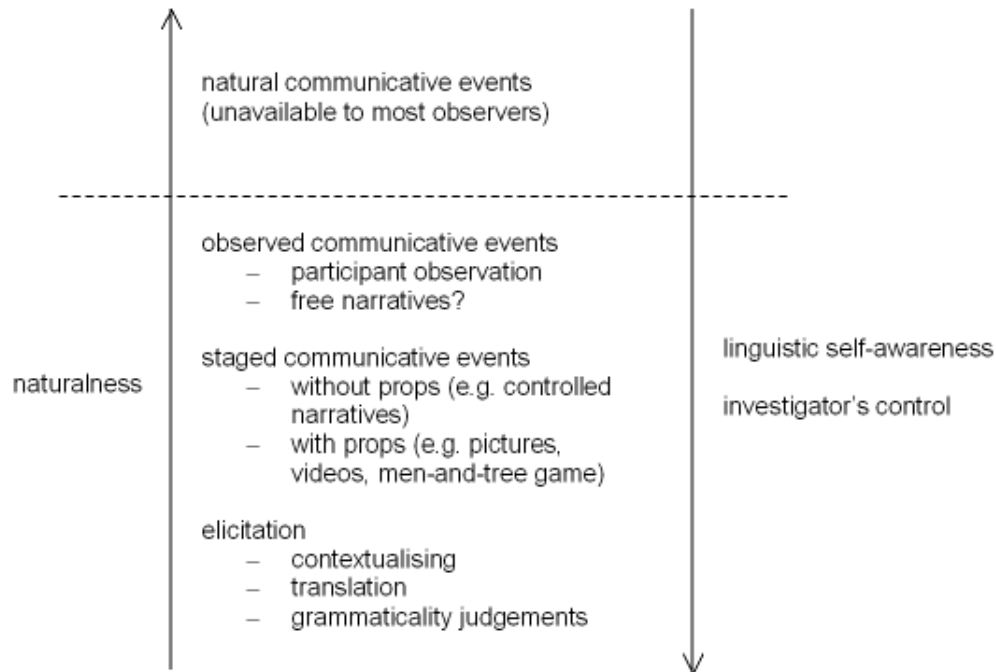


Figure 1.25 Scale of Naturalness (adapted from Himmelmann 2002: 28)

The presence of a researcher affects the naturalness of the data (the observer's paradox), especially one with a video camera, and Himmelmann's scale of naturalness of communicative events, showing the types of communicative events a researcher is able to observe as part of language documentation, takes this into consideration. At the top of the scale are natural communicative events, which are unavailable to the researcher, through to increasingly staged events and finally elicited material. Researchers working on documentations aim towards documenting as natural a communicative event as possible but elicited material provides more scope, more positive and negative evidence data being geared towards and invaluable for comparative and quantitative analysis on a specific topic. However, elicited material is not without its problems. The kind of semantic fieldwork carried out by MPI Nimjegen uses a set of tools whose focus is on a specific language area: visual stimuli tested with a range of consultants allows a large number of responses to be generated and compared within the language and then cross-

linguistically in a controlled way. For my work I found the BowPed pictures very useful not only for investigating topological descriptions, but also to kick-start my language learning; and the Men in Trees set was invaluable for initial research into Frames of Reference preferences. However, I found it best to use the tools as a starting point and to corroborate data they provided with that collected in a more ‘natural’ setting. Thus when I heard the use of a particular frame in elicitation, I wrote spontaneous use of the frame in a notebook I carried with me: the location of Pastor Timoti’s shoes which he had mislaid, the position of a tourist whose video camera Gaylee was commenting on at the land-diving event, and; which washing line Lessian told me to hang my clothes on, are only some examples of more natural use of spatial language I noted down. Similarly when one consultant offered an interesting response to the picture from the BowPed series of a cigarette in a man’s mouth, I followed this up with questions about a similar configuration wherein a chilli branch was hanging in the roof of a kitchen. This approach was not only to aim towards using natural language, but also to avoid mistakes as Catriona Hyslop (2002) reported occurred with elicited material in her fieldwork in Ambae⁴⁶. Therefore language use in its natural setting was observed i.e. ethnographically-informed documentation (Harrison 2006, 2007)⁴⁷ to provide evidence in a less controlled setting. A further methodology which influenced my work was what Matthewson (2004) refers to as ‘direct elicitation’⁴⁸; a technique in addition to text analysis and observation of naturally-occurring discourse in which it is recommended that translations and consultant comments are treated as ‘clues’, not analysis per se. This idea was valid in my experience: comments by speakers and transcriber/translators, where different, gave vital clues towards orthography development, analysis of many

⁴⁶ This kind of cross-referencing is vital. Hyslop (2002: 47) highlights the ‘dangers of elicitation’: “my confidence in the accuracy of my response [using a relative frame of reference to describe a boy hiding behind a tree] stemmed from the fact that I had elicited a similar sentence from [the language consultant] on my fieldtrip the year before”.

⁴⁷ Harrison (2006) documented the directional system of Tuva, commenting that: “Landscape and culturally-specific packaging of knowledge impinges on grammar, sometimes to such an extent that there can be no adequate description of grammar in isolation from the cultural knowledge that underlies it” [...] “Even with the most elaborate of thought experiments or miniature scale models I sincerely doubt that this system could be fully elicited, understood and documented in the classroom or laboratory [...]. The result would be a gap in the morphology and an incomplete description of the grammar (Harrison 2005: 28).

⁴⁸ By ‘direct elicitation’ Matthewson (2004) means asking for three types of judgement from the speakers: grammaticality, truth-value and felicity judgements.

grammatical forms and detailed explanations of lexical items⁴⁹, but sometimes were misleading too: one consultant transcribed material and would omit repetitive sections of text or, in the case when his mother was the speaker, re-phrase it, others would give translations and explanations of terms or grammar obscured by their knowledge of Bislama or English grammar and vocabulary. However, too much questioning of consultants, or questioning the wrong consultants⁵⁰ as per the methods Matthewson describes, was unproductive and led to confusion, boredom or both and finally untrustworthy data.

Matthewson also finds the use of a meta-language can improve data analysis⁵¹. With one aim of the research being to write a sketch grammar as well as a detailed description of the spatial referencing system, this methodology was instructive and necessarily less time-consuming⁵² than a strictly ethnographic approach as employed by Harrison (2006)⁵³ who advocates monolingual fieldwork.

⁴⁹ My main consultant for transcribing data was David Tabi who added immeasurably to my understanding of Ske in his transcription notes and would even add footnotes to the material with information relating to current day versus historical usage of lexical items, or cultural and botanical references for obscure terms he knew I would not be familiar with. Pastor Timothy's patience was infinite and he checked over my observed data and gave judgments as per those described by Matthewson (2004) with thoughtfulness and depth.

⁵⁰ On returning from his fieldwork and prior to my leaving, Pete Budd, from SOAS, made a comment regarding the need to find the right consultants for the job. This was excellent advice. Elder Cain was a superb storyteller but became confused when asked for grammaticality judgements, on the other hand, Pastor Timoti was much more at home with this kind of work. David Tabi enjoyed transcription as he learned many stories told by the elders and new words but he could also do the work in his own time. I was very lucky to have such an array of willing and able consultants to work with.

⁵¹ Matthewson (2004) refers here to using meta-language in contrast to no language, i.e. non-verbal techniques for eliciting semantic data. Elicitation without meta-language is valuable but time-consuming, sometimes not providing means to produce all the sentences the fieldworker wishes to verify and therefore can lead to incomplete data once again (2004: 379).

⁵² While encouraging analysis of texts and naturally-occurring discourse also, Matthewson (2004) finds that 'the problem with the exclusive use of this method is the poverty (in terms of quantity) of the data. A texts-only approach relies on the assumption that we are capable of extracting all relevant information about a language merely from a set of texts, even though the amount of data we can gather by this methods is a fraction of the amount that a child hears while acquiring a language' (Matthewson 2004: 376).

⁵³ Harrison (2006) is an example of a documentation project carried out without a contact language, relying solely on immersion and participant observation.

I found that my methodologies shifted from elicitation and semantic fieldwork using Bislama as a meta-language to increased observation and monolingual interaction as the period of fieldwork progressed. Improved Ske language skills were a primary factor of this change but also increased familiarity with the community and participation, as described in the fieldwork section above, which led to a dispreference for elicitation tools which tended to appear childish to consultants and gave the impression consultants were subjects of study, rather than the language. Other considerations must be made when using stimuli tools. Cultural inappropriateness of objects is one issue; another is inappropriate participants in the stimuli games on account of their age, gender or status. Tasks, like materials, can be adapted to the participants: Jukes (2007) was able to capture a rich commentary of a journey through a village in Sulawesi, Indonesia, from older and more proficient speakers of the community, who were unable to make the journey themselves, by filming the journey first and recording them as they watched it. Clearly, recruiting language consultants not only entails considering their language proficiency, willingness or enthusiasm for the job, but also other factors including the social appropriateness of pairing them with a task. In short, it is vital to find appropriate tasks for consultants and consultants for tasks.

Returning to Himmelmann's scale of naturalness, it seems that the naturalness of the data is inversely proportionate to the control exerted by the researcher. I found that it was useful to vary tasks conducted during longer work sessions along the scale to ease pressure on either the consultant or myself, but here again, the appropriateness of the task had to take into consideration my relationship to the consultant; a readily available example was not putting myself in a more powerful position or undermining the chief's authority by asking for grammaticality judgements or other tasks requiring critical analysis.

Considering now the genres of speech along the planned-unplanned continuum; I found it easier to capture events on the extremes. Exclamations occur unheeded in elicitations, are overheard in observation and easier to write down due to the brevity of the context

and the phrase itself. Planned events, such as wedding speeches were easy⁵⁴ to record as they occur in a larger event with its own internal structure with cues that I was warned about in advance so as to turn on the camera. Conversations, however, are neither brief nor forewarn-able. I attempted to mitigate these difficulties with varied results: leaving the camera running with consultants' permission when I left the room produced little other than questions as to where I had gone and lengthy periods of gazing at the floor, and; asking Pastor Timoti to re-tell his story of a hurricane hoax phonecall the previous evening, which had led to animated conversation in Lessian's kitchen in the morning, when recorded after lunch was told more deliberately and this with a post-lunch lethargy saw the addressee falling asleep. More successful was when a staged interview developed into a history lesson: I asked brothers Ben and Jim to tell me about their work at the airport at Lonorore and Jim began asking questions of his older brother for his own interest. Similarly, Jonas instigated a recorded interview where he interviewed a village elder and I merely operated the camera. Finally, I also, with permission, left the camera running during a church meeting and captured lively debate. Clearly, the events described are still observed yet occurred more naturally when I was not in focus as an addressee, when a speaker found it in their interest to take an active role or when the conversation was task-oriented.

Language documentation methodology recommends use of multimedia to record language: video and audio material was recorded and transcribed with a native speaker consultant, but also many notebooks were filled with further material from elicited sessions as well as pocket books I carried with me around the village and wrote overheard language in. To avoid errors I checked written notes with Pastor Timoti. All data needs contextual metadata and for the study of space here, locations of speakers, addressees, entities referred to and gestures were included. Multi-media data has been annotated using ELAN and stored with unique identifying codes (Bird & Simmons

⁵⁴ They were not practically easy: in Ske ceremonies the main participants are never rooted to the spot, typically pacing to and fro between two points. Also trying to record Chief Paul's speech half-way up the land-diving tower required assistance with a boom from my fellow guesthouse lodger, Tafa Iuea from Tanna, agricultural assistant and part-time boom operator.

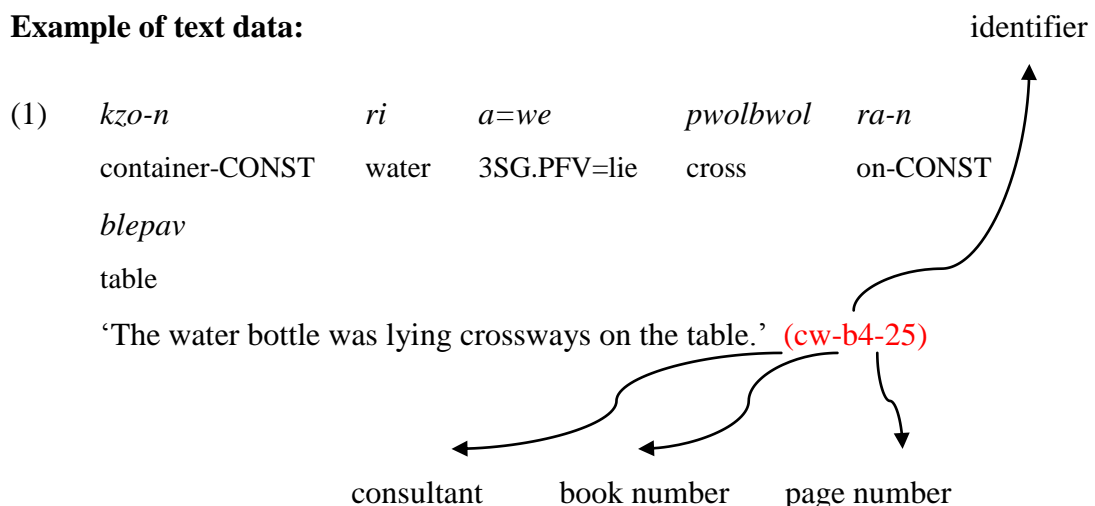
2003). Text data such as written notes and transcribed and translated data have been entered into Toolbox.

Emphasis prior to fieldwork regarding technical work was on ‘best practise’, specifically, the use of correct microphones for the setting and attempting to recreate a recording a studio in the field. Whilst these standards were there to aspire to, best practise in the field was the best I could possibly achieve considering weather, children and chickens, among many other adversaries of the camera and microphone.

1.9 A Note on the Data

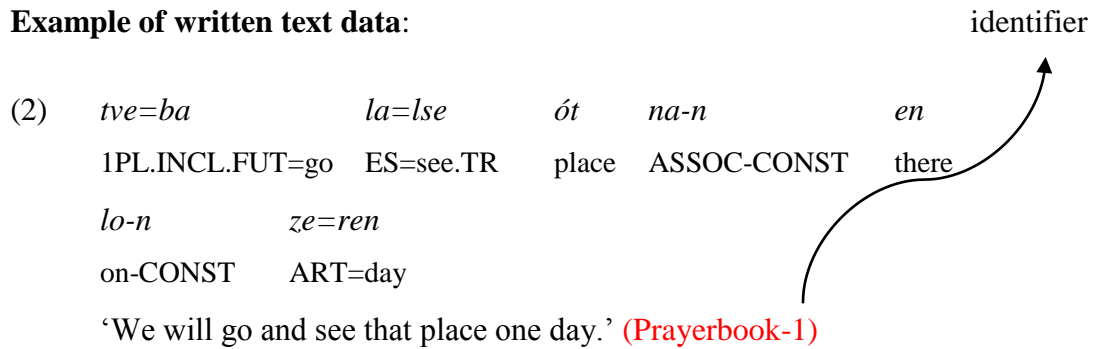
The linguistic data was recorded in the form of text (observed or elicited data which I recorded in notebooks), written text (authored by Ske speakers), video and audio. Examples in the text have unique identifiers, given in brackets in the bottom row of the example, following the translations. A number of examples do not have identifiers. This is sometimes because they were typical phrases that were often overheard and were not repeatedly written down, or they were elicited data recorded as part of a set, for example the BowPed recordings. The appendix lists audio and video recordings along with their dates and the content, which locates these recordings whose identifiers are not written by the example. The identifiers can be read as follows:

Example of text data:



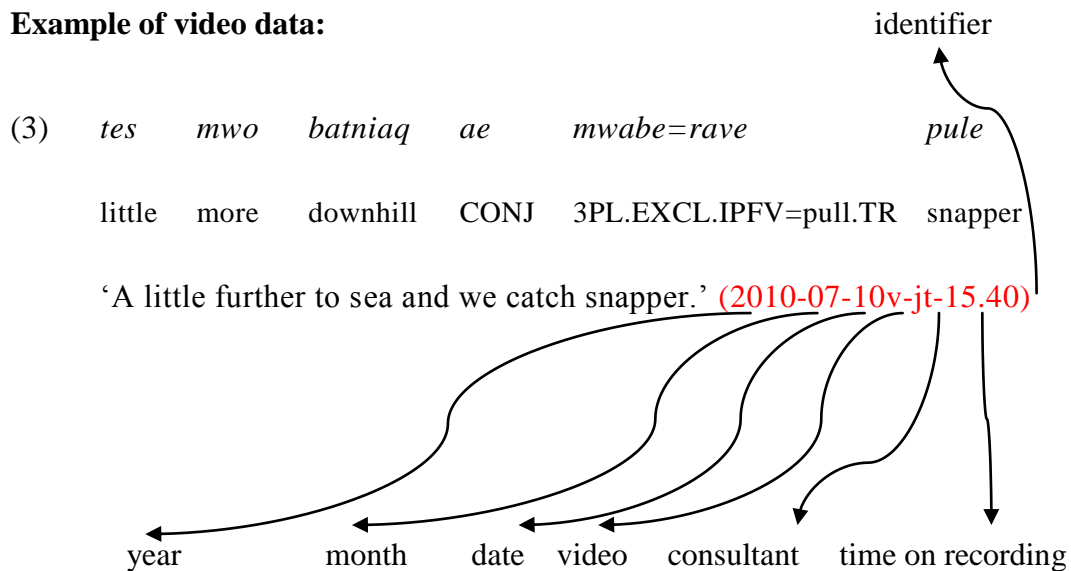
All books have different numbers. Once one was filled, another was started.

Example of written text data:



The written text data identifier gives the name of the text, here the prayerbook and hymn, chorus or prayer number. Other texts may or may not have page numbers as some texts were one page only.

Example of video data:



Video and audio data are recorded in the same way with the exception that video recordings include the time of the utterance after the consultant code. This is because the video recordings are longer texts and audio recordings were often elicited texts and very short.

Example of audio data:

(4) *dahe-n* *m=do* *lal* *im*
mother-3SG.POSS 3SG.IPFV=sit at house
'His mother is in the house.' (2008-11-12-00072au-ec)

year month date record number audio consultant

identifier

‘His mother is in the house.’ (2008-11-12-00072au-ec)

year	month	date	record number	audio	consultant
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Chapter 2

A Grammatical Sketch of Ske

Ske phonology is presented in (2.1) and a brief section on morphology in (2.2). The following sections on clause structure (2.3) and phrase structure (2.4) describe the grammar of Ske from a typological perspective. The major word groups are then presented: nouns (2.5) and verbs (2.6), in which verb classes and verbal particles in the verb complex are described. In (2.7) non-core arguments are discussed.

2.1 Phonology

The Ske phoneme inventory is one of the larger inventories of Vanuatu languages (Lynch, Ross & Crowley 2002). It is typical of Vanuatu and Oceanic languages in having relatively few complex articulations except for labio-velarised consonants and a contrast between phonetically prenasalised voiced stops and plain oral voiceless stops. Syllable structure is relatively complex compared to most languages of the area, which have a tendency to be of a simple CV type. Stress does not fall on the penultimate syllable, as is generally the case in Oceanic languages, but on the final syllable. Stress has a fairly low functional load at word-level. Intonation at the level of the phrase is important for typing a phrase as declarative or interrogative.

2.1.1 Consonant Phoneme Inventory

Table 2.1 Consonant Phoneme Inventory

	labiovelar	bilabial	alveolar	velar	glottal
plosive	p ^w b ^w	p b	t d	k g	
nasal	m ^w	m	n	ŋ	
fricative	β ^w	β	s z	γ	h
lateral			l		
approximant	w				
trill			r		

The table shows the Ske consonant phoneme inventory in IPA symbols (where there are two phonemes in one column, the voiceless phoneme is on the left and the voiced on the right)

Voiced plosives /b^w, b, d, g/ are phonetically prenasalised. Pre-nasalised stops contrast with voiceless stops: each can occur word-initially and word-finally. Examples below show contrasts with the alveolar voiced and voiceless stop pair:

(1)	Word-initially		Word-finally
/ti/	[ti]	‘2SG.FUT’	/it/ [it] ‘octopus’
/di/	[ndi]	‘grow.shoot’	/id/ [ind] ‘1PL.INCL.IND’ (‘we’)

Word-initially, prenasalisation of /b^w/ and /b/ is less audible. Prenasalisation also occurs across word-boundaries where the final segment of a word is a vowel and the following word has an initial voiced plosive. Voiced stops /b/ and /d/ undergo verb-initial consonant mutation whereby /β/ → /b/ and /z/ → /d/. This is vestigial realis-irrealis marking and is discussed in (2.5.1.4).

(2)	/b ^w et /	[b ^w et]	‘taro’
	/ab/	[amb]	‘fire’
	/didio/	[ndindio]	‘fruit.bat’
	/m ^w agrek/	[mwanɣrɛk]	‘today’
	/m ^w a ba b ^w aravet/	[mwa mba mbwaravet]	‘3SG.IPFV go Bwaravet’
			(‘I’m going to Bwaravet’)

2.1.1.1 Labio-velar Consonants

Phonemic status of the labio-velar phonemes are established below, by minimal pairs.

/p ^w /-/b ^w /	/p ^w ar/	‘open.INTR’	/b ^w ar/	‘head.3PL.POSS’ (‘their heads’)
/p ^w /-/p/	/p ^w ir/	‘return.INTR’	/pir/	‘be.fat.INTR’
/p ^w /-/β ^w /	p ^w ir/	‘return.INTR’	/β ^w ir/	‘purple.swamphen’

/b ^w /-/b/	/b ^w a-ŋg/ ‘head-1SG.EXC.POSS’ (‘my head’)	/baŋg/ ‘banyan tree’
/b ^w /-/m ^w /	/b ^w al/ ‘fight.INT’	/m ^w al/ ‘child’
/b ^w /-/w/	/b ^w ar/ ‘head-3PL.POSS’ (‘their heads’)	/war/ ‘call.INT’
/b ^w /- β ^w /	/b ^w ɔh/ ‘sell.INT’	/β ^w ɔh/ ‘oar’
/m ^w /-/m/	/m ^w a-n/ ‘CL.DR-3SG.POSS’ ‘his(drink)’	/man/ ‘laugh’
/m ^w /-/w/	/m ^w a-n/ ‘CL.DR-3SG.POSS’ ‘his(drink)’	/wan/ ‘bear.INT’
/β ^w /-/β/	/β ^w ɛl/ ‘dance.INTR’	/βɛlβɛl/ ‘soon’
/β ^w /-/w/	/β ^w a-n/ ‘lid/opening-3SG.POSS’	/wan/ ‘bear.INTR’
/w/-/l/	/wsɛ/ ‘hit.TR’	/lsɛ/ ‘see.TR’
/w/-/r/	/war/ ‘call.INT’	/rar/ ‘on.3PL.POSS’

Younger speakers are re-analysing the labio-velarised phonemes /p^w, b^w, β^w/ as bilabial phonemes followed by /i/, for example:

(3)	Older speakers	Younger Speakers	
	/alβ ^w al/	/alβial/	‘one’
	/b ^w oŋ/	/bioŋ/	‘night’

Labio-velarised consonants are realised as non-velarised forms when followed by a consonant or in word-final position. When in word-final position, the underlying forms surface when any morphology is added such that the labio-velar is no longer in final position, for example, when a noun is derived from a verb with the suffix *-an*.

(4)	/um ^w /	[um]	‘work.INTR’
	/um ^w an/	[um ^w ãŋ]	‘work.n’

Note that nasalisation of vowels occurs following a labio-velar consonant, shown above where /a/ is nasalized under these conditions.

2.1.1.2 Bilabial Consonants

Phonemic status of the bilabial set of phonemes is established below with minimal and near minimal pairs:

/p/-/b/	/pɛ / 1PL.EXC.IPFV	/bɛ/ 3PL.IPFV
/p/-/β/	/pir/ be.fat.INTR	/βir/ ‘(rank of) chief’
/p/-/t/	/dal.prɛ/cut.upTR	/sɛk.trɛ/ appear/come.through.TR
/b/-/m/	/bni/ ‘cloud’	/mni/ drink.TR
/b/-/d/	/bli/ count.TR	/dli/ ‘around’
/m/-/n/	/am/ CL.ED.2SG.POSS	/an/ CL.ED.3SG.POSS
/β/ -/s/	/βir/ ‘(rank.of) chief’	/sir/ ‘all’

The bilabial nasal consonant /m/ is realised as a labio-velarised consonant /m^w/ before back vowels /u, o, ɔ/.

The voiceless fricative /f/ only occurs in loanwords such as ‘telephone’ or ‘family’. It is not included in the inventory above but is included in the orthography in (2.1.5).

2.1.1.3 Alveolar Consonants

The phonemic status of the set of alveolar phonemes is established below:

/t-d/	/tβɛ/ ‘1PL.EXCL.FUT’	/dβɛ/ ‘3PL.FUT’
/t-k/	/ti/ ‘2SG.FUT’	/ki/ ‘2SG.PFV’
/t-s/	/ti/ ‘2SG.FUT’	/si/ ‘write.TR’
/t-z/	/ti/ ‘2SG.FUT’	/zi/ ‘sugar/sugar.cane’
/d-g/	/ad/ ‘CL.ED.1PL.EXCL’	/ag/ ‘CL.ED.1SG.EXCL’
/d-n/	/lia-d/ ‘side-1PL.EXCL.POSS’	/lia-n/ ‘side.3PL.POSS’

/d-z/	/dɛŋ/	‘cry’	/zɛŋ.zɛŋ/	‘alot/very much’
/d-l/	/dɛŋ/	‘cry’	/lɛŋ/	‘wind’
/d-r/	/a-d/	‘CL.ED.1PL.EXCL.POSS’	/a-r/	‘CL.ED.3PL.POSS’
/k-g/	/kal/	‘climb.INTR’	/gal/	‘lizard’
/s-z/	/sɛk/	‘hook/fish.INTR’	/zɛk/	‘behind’
/n-ŋ/	/lin/	‘hair.3SG.POSS’	/liŋ/	‘land.TR’
/n/-z/	/ni/	‘3SG.IND’ ‘he/she’	/zi/	‘sugar/sugar cane’
/n/-l/	/un/	‘skill’	/ul/	‘material/clothes’
/n/-r/	/ni/	‘3SG.IND’ ‘he’	/ri/	‘river/water’
/l/-r/	/b ^w al/	‘fight.INTR’	/b ^w a-r/	‘head-3PL.POSS’
/z/-l/	/zɛŋ.zɛŋ/	‘alot/very much’	/lɛŋ/	‘wind.generic’
/z/-r/	/zi/	‘sugar/sugar cane’	/ri/	‘water/river’

/z/ is realised as an affricate /ð/ before vowels by some speakers.

There is no alveolar affricate /ts/. In Ske this is analysed as a consonant cluster (2.1.3.1). The sequence /ts/ is found in a few words in Ske including /tsu/ ‘set.TR’ (of the sun) and more frequently loanwords; in the names ‘Jack’ or ‘Chuck’ /tsak/ and in ‘church’ /tsiots/. Consonant clusters in coda position are only found in loanwords (2.1.4).

2.1.1.4 Velar and Glottal Consonants

The phonemic status of velar consonants is established below (minimal pairs and near-minimal pairs):

/g-ŋ/	/lig/	‘hair.1PL.EXC.POSS’ (my hair)	/liŋ/	‘land.TR’
/g-ɣ/	/grɔ-n	‘fence-3SG.POSS’	/ɣrɔ/	‘hunt/chase.TR’

/ɣ-h/ /ɣlia/ ‘know.TR’ /hria/ ‘send.TR’

/ɣ/ has allomorphs [g] and [ɣ]. [g] is realised before voiced phonemes and [ɣ] elsewhere. There is no glottal stop phoneme.

2.1.2 Vowel Phoneme Inventory

Ske has a set of 10 vowel phonemes including three contrasting diphthong phonemes. There is no contrast in vowel length in Ske.

2.1.2.1 Vowel Monophthongs

Table 2.2 Vowel Phoneme Inventory (Monophthongs)

	Front	Central	Back
Close	i		u
Close-mid	e		o
Open-mid	ɛ		ɔ
Open		a	

The close-mid vowel /e/ is phonetically realised [e̞] in a stressed syllable after most consonants (i.e. when not word-initial). Exceptions are /r/, /t/, /p/, /b/ although there is some speaker variation.

/mɛb/ [m̞ɛmb] ‘rest.INTR’ /me.ˈban/ [memban]

Phonemic status of vowel monophthong phonemes is established below.

/i/-/e/ /bi/ ‘2PL.IPFV’ /be/ ‘shark’

/i/-/ɛ/ /lik/ ‘East Pentecost’ /lɛk/ ‘marry.INTR’

/e/-/ɛ/ /bze/ ‘weave.TR’ /bze/ ‘breadfruit’

/u/-/o/ /uh/ ‘ask.INTR’ /oh/ ‘rain.INTR’

/o/-/ɔ/ /boh/ ‘be.ashamed.INTR’ /bɔh/ ‘sell.INTR’

/a/-/ɛ/ /sak/ ‘ascend.INTR’ /sɛk/ ‘hook/fish.INTR’

/a/-/ɔ/ /la/ ‘ES’ (echo subject marker) /lɔ/ ‘vomit.INTR’

2.1.2.2 Vowel Diphthongs

Ske also has the following contrasting diphthongs:

Table 2.3 Diphthong Phoneme Inventory

Falling	Rising
io	ao
ia	

The phonemic status of diphthongs is established below with evidence from minimal pairs and near minimal pairs.

- (5) /azio/ ‘knife’
 /azo/ ‘man’
 /azɔ/ ‘3SG.PFV.sit’ (‘he/she sits/is sitting’)
- (6) /mian/ ‘tongue.3SG.POSS’ (‘his/her tongue’)
 /man/ ‘laugh.INTR’
 /min/ ‘drink.INTR’
- (7) /sao/ ‘sing.TR’
 /sa/ ‘knock/re-open.wound.TR’
 /so/ ‘exit.INTR’

Evidence that diphthongs are single units and not vowel sequences also comes from reduplication (see 2.1.3.1) and stress assignment rules (2.1.3.4). When vowel diphthongs are in a base which undergoes reduplication, they are treated in the same

way as monophthongs. Also, sequences of two vowels follow stress assignment patterns of Ske such that the final vowel is stressed, whereas with diphthongs, stress is placed on the first element. Compare the following:

(8)	Diphthong	VV Sequence
	/ ^l ao/ ‘rope’	/a. ^l o/ ‘yes’

2.1.3 Phonotactics

In (2.1.3.1) the structure of the syllable, consonants allowed in onset position and treatment of geminates and diphthongs in reduplication will be looked at. In (2.1.3.2) the focus is stress and in (2.1.3.3), voicing and voiced consonants are discussed with respect to feature spreading and assimilation.

2.1.3.1 Syllable Structure

The maximal syllable structure of Ske is (C)(C)V(C)

V	/ao/	‘rope’
VC	/ih/	‘banana’
CV	/b ^w o/	‘pig’
CVC	/zan/	‘earth/ground’
CCVC	/srɛk/	‘field’

Complex onsets are an important feature of Ske phonology and morphophonology, in particular when deriving some transitive-intransitive verb pairs and when verbs undergo reduplication.

Words from all classes may have complex onsets. When inflectional morphology specifying person, number and tense-aspect is added to verbs, cluster-initial verbs are treated differently to verbs with a single consonant in the onset. There are three allomorphs for the subject marker ‘3SG.IPFV’: /m^wɛ/, /m/ and /m^w/. Subject markers are pro-clitics and attach on to a verb (or verbal particle preceding the verb, see

2.6). When a verb has an initial cluster, this triggers the allomorph /m^wε/ thereby avoiding an impermissible cluster of three vowels:

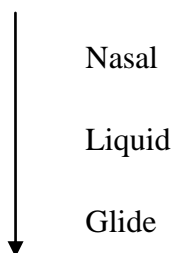
- (9) /m=raβε/
 ‘3SG.IPFV=pull.TR’
 ‘He/she/it flies/is pulling (something).’

<p>*/m=rβi/ 3SG.IPFV=blow.TR</p>	<p>→</p>	<p>/m^wε=rβi/ ‘3SG.IPFV=blow.TR’ ‘He/she/it blows/is blowing (something).’</p>
---	----------	---

Also, clusters can occur word-initially, notably after a deriving a noun by suffixation of *-an* or *-na(-n)*. Furthermore, verbs are not the only category of words which have initial clusters: a large number of underived nouns do also, and since nouns do not take prefixes in Ske, the cluster is always word-initial.

Sequences of consonants permitted in the onset also frequently violate sonority hierarchy principles (Selkirk 1984) which predict that sonority should rise from the onset towards the syllable nuclei. On a scale of less to more sonorous, the order is:

Less Obstruent (voiceless less sonorous than voiced)



More Vowel

- (10) Permitted sequences in Ske include:

- | | |
|----------------------|-------------------------------------|
| - glide + liquid | /wli/ ‘pull.out/extract.TR’ |
| - liquid + obstruent | /lp ^w ia/ ‘kill.TR’ |
| - liquid + nasal | /lma/ ‘lie.INTR’ (‘not tell truth’) |
| - nasal + obstruent | /mso/ ‘star’ |

- sequence of voiced stops /dzɔn/ ‘his/her son’
- sequence of voiceless stops /ptek/ ‘plant.taro.INTR’

Complex onsets can be geminate consonants, as shown in the minimal pair of nouns below:

(11) /ssɛr/ ‘red.mat’ (traditional mat of Central Pentecost) and:

/sɛr/ ‘lantern’ (or torch or other light sources)

Geminate consonants are common verb-initially: the verbs /man/ ‘laugh’ and /mman/ ‘be sharp’ are minimal pairs which trigger different allomorphs of the 3SG.PFV subject marker, as discussed above. The single consonant-initial verb /man/ ‘laugh’ in combination with the subject marker forms the maximal syllable shape with an initial geminate. In contrast, /mman/ ‘be sharp’ already has the maximal syllable shape and forms a di-syllabic word with the subject marker.

(12) /m=man/ ‘He/she/it laughs/is laughing’.

/m^wɛ=mman/ ‘It is sharp.’

As mentioned in (2.1.1.3) above, /ts/ is not a single segment in Ske but is a cluster; the verb /tsu/ ‘set.INTR’ (e.g. ‘the sun sets’) triggers the 3SG.IPFV allomorph /m^wɛ/ like other cluster-initial or geminate-initial verbs.

(13) /m^wɛ=tsu/ ‘It sets/it is setting.’

The maximal syllable can consist of a geminate onset and a diphthong as in /wwiar/ ‘beg repeatedly’ as shown below. The translations of the examples below indicate that the verbs have reduplicated and then undergone segment deletion to derive a new word.

(14) /m^wɛ=wwiar/ 3SG.IPFV=beg.repeatedly

‘He always/is always begging.’

(of a cat, asking for food)

/m=wiar/ 3SG.IPFV=beg
‘He begs/is begging.’

/m^wε=wwar/ 3SG.IPFV=shout/call.repeatedly
‘He always/ is always shouting.’

/m=war/ 3SG.IPFV=shout/call
‘He shouts/is shouting.’

The examples in (12) and (14) shows that words with geminate consonants and clusters in initial position are generated in the morphology, by cliticisation and in word derivations.

Reduplication illustrates that consonant clusters and geminate consonants are treated alike, as are vowel monophthongs and diphthongs. The maximal syllable in Ske cannot wholly reduplicate: when a verb reduplicates, the structure of the reduplicant is maximally CCV or CVC. If the base is not the maximal syllable structure, but has fewer, thn the base in its entirety is reduplicated. Examples below show reduplication with monosyllabic bases.

(15)

Base	Reduplicant	Reduplicated with 3SG.IPFV marker:
CV	CV /ka/ ‘hang’	/m=ka~ka/
CVC	CVC /tɔβ/ ‘talk’	/m=tɔβ~tɔβ/
CCV	CCV /rβi/ ‘blow.TR’	/m ^w e=rβi~rβi/
CCVC	CCV /hlal/ be.lost.INTR	/m ^w e=hla~hlal/

Vowel diphthongs are treated identically to vowel monophthongs:

(16)

V^(monoph) in CVC verb

V^(diph) in CVC verb

/kal/ climb.INTR /m=kal~kal/ /gial/ know.INTR /m=gial~gial/

Concerning complex onsets, consonant clusters comprised of geminates are treated identically to consonant clusters comprised of non-identical segments. The example below also shows bases with maximal syllable structure; the base does not reduplicate, the reduplicant has the structure CCV. The maximal syllable structure in Ske is thus heavy (whether the onset is a geminate or non-geminate) and other syllables are light.

When the base has the maximal syllable structure:

(17)

CC^(Simple) in CCVC verb

CC^(Gem) in CCVC verb

/kraβ/ 'look.INTR' /m^we=kra~kraβ/ /kkas/ 'be.sweet' /m^we=kka~kkas/

2.1.3.2 Stress

In roots with two syllables, stressed is place on the final syllable.

(18) Two syllable words including compounds:

/a. ¹ o/	'yes'
/a. ¹ zio/	'knife'
/wɛ. ¹ il/	'hair'
/tɔ. ¹ baŋ/	'basket'
/tit. ¹ m ^w o/	'rat'
/β ^w o. ¹ m ^w ol/	'orange'
/a. ¹ ssiar/	'angel'

/lɔk.¹pʷɛt/ ‘taro laplap’

In roots with three syllables, secondary stress is placed on the first syllable and primary stress remains on the final syllable.

(19) /¹ta.ba.¹ria/ ‘house.spider’

/¹ba.βli.¹hɲia-n/ ‘his nail’ (on hand)

In four-syllable words, primary stress falls on the final syllable and secondary stress falls on the first syllable.

(20) /¹tao.raŋ.mi.¹sior/ ‘July’

/¹tao.raŋ.kɛt.¹kɛt/ ‘June’

In Ske, subject markers are pro-clitics which may cliticise on to a verb to form a phonological word and for stress assignment purposes they are handled accordingly. When pro-clitic and root are monosyllabic, a di-syllabic word sees stress assigned to the final syllable. If the proclitic is disyllabic and the root monosyllabic, a three-syllable word is formed and secondary stress falls on the first syllable with primary stress on the final syllable. Where both root and proclitic are di-syllabic, secondary stress falls on the first syllable and primary stress on the final syllable.

(21) /¹bɛ=¹ba/ ‘3PL.IPFV=go’

/¹mʷabɛ=¹ba/ ‘1PL.EXCL.IPFV=go’

/¹mʷabɛ= sar¹kle/ ‘1PL.EXCL.IPFV=change.TR’

Nominalising affixes are monosyllabic and also form a phonological word with the root, thus primary stress is assigned to the suffix:

(22) /¹βa-¹an/ ‘go-NMLZ’ ‘trip’

/¹raŋ~raŋ-¹an/ ‘REDUP~cook.INTR-NMLZ’ ‘cooking’

/va.mul-^lna-n/ ‘answer-ASSOC-3SG.POSS’ ‘(its) answer’

/zɔd.lab.lab^l-an/ ‘be.concerned.INTR-NMLZ’ ‘concern’

The transitivity suffix *-si* and transitivity clitic *=ne* are monosyllabic and attract primary stress if the introduced argument is overt (see 2.6.6). However this implies they attract stress at the phrase-level rather than at the word-level, as illustrated by the intonation contour line below. If the argument is not overt, the final syllable of the verb root is stressed.

(23)



/m^wa= man=^lsi/ 1SG.EXCL.IPFV=laugh=APP ‘I’m laughing (at someone).’



/m^wa= ^lman=si ig/ 1SG.EXCL.IPFV=laugh=APP 2SG.IND

‘I’m laughing at you.’

As indicated here, phrase-level intonation patterns typically rise phrase-finally in declarative and interrogative sentences. The phrase-final rise of interrogatives is higher than that of declaratives, however. Imperative sentences are marked by a phrase-initial peak and a sharp dip with a slight rise phrase-finally. In discourse and narratives, a long series of co-ordinated phrases is common and each is marked with a rise in intonation phrase-finally.

2.1.3.3 Voicing

Across word-boundaries and across stem boundaries in compound words the voiced and pre-nasalised velar /g/ devoices to become /k/:

(24) /g/ → /k/

/a-g/ +/ paenap/ → /ak paenap/

CL.ED-1SG.EXCL.POSS + ‘pineapple’ ‘my pineapple’

In compounds (or across word-boundaries) /log/ ‘laplap’ devoices to /lok/ when /g/ precedes a voiceless consonant and also if /g/ precedes another voiced consonant both consonants devoice. Otherwise it remains voiced.

(25) /log/ + /b^wet/ → /lok.p^wet/ ‘taro laplap¹’

/log/ + /salvet/ /lok.salvet/ ‘salvet laplap’

log/ + /ih/ /log.ih/ ‘banana laplap’

There is typically no assimilation or dissimilation word-internally of clusters consisting of a voiced and a voiceless phoneme, including across morpheme boundaries, as shown in the minimal and near minimal pairs below.

(26) /mso/ ‘star’

/mzo/ ‘right’

(27) /m=p^war/ ‘3SG.IPFV=open.INTR’

/m=b^war/ ‘3SG.IPFV=loose.weight/be.skinny.INTR’

One exception appears to be with the transitive-intransitive verb pair with the meaning ‘hit’, which is /b/ final when in its intransitive form, but when adjacent to /k/ it assimilates to becoming voiceless /p/:

(28)

/kub pni/ [kumb pni] ‘hit.INTR.with.stick dead’ (i.e. kill by stoning)

/kpu/ [kpu] ‘hit.with.stick.TR’

When voiceless stops occur immediately before nasalised consonants, there is feature spreading such that nasal release of the stop is triggered and there is an audible aspiration after the assimilated stop.

¹ Laplap is a dish made of staple crops such as banana, taro, yam or breadfruit. It is often boiled or grated and then baked in an earth oven. ‘Salvet’, as described in the following example, is the staple vegetable or fruit again, which is wrapped in cabbage leaf with coconut milk and boiled.

- (29) /km^wε/ [k^hm^wε] ‘2SG.IPFV’
- /tnie/ [t^hnie] ‘from/away from’
- /pmiah/ [p^hmiah] ‘well’

(short form of /pinmiah/ where there is no nasal release)

Ske phonology is more complex than described here, particularly with respect to reduplication of non-mono-syllabic roots, derivation of some transitive-intransitive verb pairs, medial vowel reduction and stress assignment. There are restrictions on some consonants in coda position and complex onsets when they reduplicate to form a tri-syllabic word.

Also in Ske, there is sometimes an audible echo vowel at the end of a word, particularly when that word occurs in isolation, such as when asking for translations, or when it occurs sentence-finally. For example, below:

- (30) /'skər/ → /'skərə/ ‘sago palm thatch’

The stress remains on the initial syllable when the echo vowel is audible. This is likely to be some residual (CC)VCV disyllabic word structure at which time stress in Ske would have fallen on the penultimate syllable of a multi-syllabic word and would have resembled the more typical stress pattern for Oceanic languages, rather than on the final syllable as now.

There is much more to be said on Ske phonology, however, for reasons of space the discussion must take place elsewhere.

2.1.4 Orthography

Prior to my trip, an alphabet for Ske had been devised by Catriona Hyslop as part of a language project across Vanuatu spearheaded by the Vanuau Cultural Centre (VKS). Some wordbooks demonstrating the alphabet were then circulated but the alphabet was not in use. During my trip we held workshops over a number of weeks, totalling

approximately 15 hours of meetings attended by around 30 community members, of whom 9 attended all the meetings. At the end of the second fieldtrip, a prayerbook with the preliminary orthography was piloted in the church. The prayerbook also contains hymns which were sung enthusiastically by the congregation, made up of the entire village, and provoked equally vigorous feedback. A number of choices were made here by community members including a preference for digraphs over single graphs, that is <ie> for the labio-velarised consonant /e/ where it is realised as a glide, and <ng> for the velar nasal /ŋ/ in keeping with the digraph used in Bislama. Whilst single graph-to-phoneme correspondences are advised in orthography development (Seifart 2006), ultimately the orthography is for the community and their orthographic preferences here have been followed. Ske community members are literate, being able to read and write in English, Bislama and, in some cases, in French as well and are thus familiar with the Latin script.

/a/	<a>	/n/	<n>
/b/		/ŋ/	<ng>
/b ^w /	<bw>	/o/	<ó>
/d/	<d>	/ɔ/	<o>
/e/	<é> and <ie> when realised as a glide	/p/	<p>
/ɛ/	<e>	/p ^w /	<pw>
/g/	<q>	/r/	<r>
/ɣ/	<g>	/s/	<s>
/h/	<h>	/t/	<t>
/i/	<i>	/u/	<u>
/k/	<k>	/β/	<v>
/l/	<l>	/β ^w /	<vw>

/m/	<m>	/w/	<w>
/m ^w /	<mw>	/z/	<z>

The graphs <j> or <ts> are adopted for the palatal affricate of loanwords.

Andrew Gray, who worked as a teacher at Ranwadi school in the Apma-speaking area for some years, has published a book on Pentecost languages and uses the trigraph <nng> to represent /g/, but this symbol is not adopted in the orthography used here or in the prayerbook. There have been no prior publications such as bible translations in Ske and so there is no competing orthography with which the community is already familiar.

In the rest of the thesis, the orthography as presented above will be used.

2.2 Morphology

On the continuum between synthetic and isolating languages, Ske is located towards the isolating end, however, particularly in verbal morphology, but also when looking at the morphology where a bound noun is the root, we often find two and sometimes three morphemes per word.

The verb phrase is minimally bimorphemic, with either a tense/aspect marker (2.3.6.4) or other pre-verbal clitic attached to the verb. Post-verbally we may find a transitivity suffix or clitic attached to the verb (see 2.6.6 on verbs and transitivity morphology), or a nominalising suffix (2.3.9) and (2.5.1.2.3).

In nominal morphology, the article *ze=* is a pronominal clitic which may attach to the noun or other first element of the noun phrase, such as the classifier preceding the noun. Post-nominally a bound noun takes an obligatory possessive suffix or a general suffix. All nouns and noun phrases can be cliticised by one of the set of demonstrative clitics. There are also three prefixes which attach to quantifiers: a multiplicative suffix which expresses ‘number of times’; an ordinal prefix *va* which occurs in conjunction with the nominiser *na* and a verbaliser *g(a)* which derives a verb from a quantifier, such as ‘to be plenty’.

Verbal reduplication is productive in Ske, altering the transitivity and lexical semantics of the verb. Verbal reduplication may also indicate that the subject is plural. Nominal reduplication is found in Ske and may indicate plurality or add emphasis; numerals are also able to reduplicate, in which case the reduplicated form has the meaning ‘in twos’ or ‘in threes’ or ‘two each’.

Nouns and nominal morphology is looked at further in sections (2.4.1), (2.4.4), (2.4.5) and (2.4.8).

Detailed analysis on the forms and semantics of Ske verbal morphology is found in (2.6).

2.3 Clause Structure

In the following sections word order at the level of the clause in main types of sentences is described, that is: declaratives, interrogatives, imperatives and also negatives sentences-types. Next, phrases where typical order is not observed are discussed.

2.3.1 Relative Order of SVO in Declarative Sentences

Typical word order in Ske of declarative sentences in main clauses is SVO. There is no case-marking to indicate core grammatical functions: core functions are indicated by word order and indexing. Adjuncts may have a preposition (see 2.7 for further discussion) as the head of the phrase, which mark their nominal object, or the noun may be the unmarked head of the phrase.

The Ske verb phrase consists minimally of a verb and a subject pronoun (31) which is a portmanteau form in Ske indicating person (first, second, third and inclusive-exclusive distinction) and number (single, dual, plural) in combination with tense-aspect categories of the verb. The subject marker is a proclitic and is the first obligatory element in the verb complex.

- (31) **SubjM V**
mwabe=an
 1PL.EXCL.IPFV=eat.INTR
 ‘We eat/we are eating.’

Occurring between the subject marker and the verb can be a mood marker or other pre-verbal particle. In (32) *ga* ‘RT’, the relative tense marker, occurs after the subject marker and before the verb.

- (32) *pasta a=ga me kangmwo*
P 3SG.PFV=RT come recently
‘Pastor has only just arrived.’

‘Free’ or ‘independent’ pronouns (Lynch, Ross & Crowley 2002: 35) have different functions to subject pronouns: they function as noun phrases in both subject and object position; as objects of prepositions; and as possessors in genitive constructions. In Ske, independent pronouns specify the same person distinctions as subject pronouns but only code two numbers distinctions: singular and non-singular. A subject pronoun and an independent pronoun indicating the same subject can co-occur. An independent pronoun or lexical NP cannot co-occur. If one or the other is overt, they always occur before the subject marker and verb, as shown in (32) where *pasta* ‘pastor’ is the overt lexical NP. Independent pronouns are summarised in Table 2.4 below.

Table 2.4 Independent Pronouns

	Singular	Non-Singular
1 ex	<i>nó</i>	<i>id</i>
1 inc	-	<i>qmwam</i>
2	<i>iq</i>	<i>qmi</i>
3	<i>ni</i>	<i>nier</i>

Although widespread in Oceanic languages (Lynch, Ross & Crowley 2002) Ske does not have a separate paradigm of object pronouns. A lexical NP or independent pronoun referencing the object in transitive clauses may follow the verb, but they are not obligatory.

Adjuncts are usually marked syntactically by prepositions, depending on the class of the head noun, and appear after the verb.

In (36) the NPs indicating the subject (the person asking the question), and the object (the question itself), are not overt. The preposition *tnie* ‘ABL’ which indicates that its object, an oblique argument, is the Source, does not require that object to be overt (which here would be an NP indicating the person being asked the question).

(36)	S	V (O)	Adjunct (NP)	
	<i>ni=mwó</i>	<i>wsi</i>	<i>tnie</i>	<i>tabzon</i>
	1SG.EXCL.PFV=IRR	ask.TR	ABL	first
	‘I should have asked (him) first.’ (lt-b19-147)			

The sentence in (37) is an excerpt from a speech after a wedding where the chief tells the new bride she should be kind in her new village, the home of her husband, and give food and water to those there to show how to look after people. Here the direct object, food or water, is not overt. The preposition *mni* marks the NP as the beneficiary. Here, the object of the preposition, *azó* ‘man’ is overt.

(37)	S	V	(O)	Adjunct	
	<i>ti=sakrene</i>		<i>mni</i>	<i>[azó]</i>	
	2SG.FUT=give.TR	BEN		man	
	‘Give (food and water) to people.’ (2010-07-11-22v-pt)				

In (38) and (39) the adjuncts are locational phrases. In (38) the adjunct is an NP and in (39) the adjunct is PP². Whether or not the object of a preposition must be overt, or whether it is indexed by a possessive suffix, depends on the class of the preposition (section 2.7). In (39) the object need not be overt. As shown, adjuncts may be NPs or PPs: the class of the noun determines whether the noun is marked by a preposition. Either way, the adjunct follows the main clause. The noun in (38) is not marked by a preposition but the noun in (39) is. Noun classes are discussed in (2.5).

² Or indeed an NP, as these forms are classed formally also as bound relational nouns, see 2.7.

- (38) *ni=zu* *Vila*
 1SG.EXC.PFV=exist V
 ‘I was in Vila.’
- (39) *Ben m=du ra-n sre*
 B 3SG.IPFV=exist on-CONST field
 ‘Ben is at the airport.’

2.3.2 Relative Order of SVO in Interrogative Sentences

SVO order is also observed in interrogatives. Polar interrogatives in Ske are expressed either by a rising intonation pattern or a question tag *nga*, or lastly by placing ‘or not’ at the end of a sentence, which resembles an ‘alternative question’ type (König & Siemund 2007: 291). The example in (40) could be a declarative or an interrogative, but rising intonation types it as an interrogative. In (41) a question tag is used and (42) is an example of an alternative question.

- (40) *Lessian a=me ze*
 L 3SG.PFV=come COMPL
 ‘Did Lessian arrive (already)?’
- (41) *kmwe=ga me, nga?*
 2SG.IPFV=RT come. Q
 ‘Have you just arrived?’ (ec-b8-43b)
- (42) *de=me, o³ ehe?*
 3SG.FUT=come or no
 ‘Will he come or not?’

The position of interrogative expressions in content questions is an example of where Ske does not correlate with VO order. In VO languages, such expressions most commonly occur before the verb, however in Ske, interrogative words occur *in situ* i.e. in the same position that a corresponding non-interrogative word would occur

³ This is a borrowing from Bislama, *e* ‘or’ is the Ske term. Speakers tend to use both.

(Dryer 2007a: 108). For example, in (43) the interrogative *sien* ‘who?’ functions as subject and thus occurs before the verb.

- (43) *sien* *m=du* *la* *ri* *en=dae*
 who 3SG.IPFV=exist at river place=DIST
 ‘Who’s at the river over there?’

Whereas in (44) the interrogative expression *ebe* ‘where?’ functions as an adjunct in a locative phrase; it appears after the verb and is unmarked by a preposition, like local nouns such as the placename *Valiamit*.

- (44) *m=du* *ebeh/ Valiamit*
 3SG.IPFV=exist where? /V
 ‘Where is he?/He is (at) Valiamit.’ (pt-b19-18)

Interrogative expressions are summarised in the table below.

Table 2.5 Interrogative Expressions

Question word	Form	Class	Other meaning or use
how many?	<i>avih?</i>	quantifier	‘few’ can also function as a verb with verbal prefix <i>ga-</i>
where?	<i>ebeh?</i>	locational noun	‘where’
who?	<i>sien?</i>	proper noun	can be used reflexively when preceded by independent pronoun e.g. <i>ni sien</i> ‘himself’
how?	<i>m=ge hnga?</i>	verb phrase	verb <i>ge</i> ‘be.like’ is used in adverbial manner clauses
what/which?	<i>ske?</i>	proper noun	as post-nominal modifier, translates as ‘which?’
what time?/	<i>taron ske?</i>	temporal noun	temporal noun <i>taron</i> ‘time’ in

when?			combination with pronominal is used in temporal adverbial clauses: <i>taron qane</i> ‘at the time/when’. Used in questions in non-past.
when?	<i>langenh/ nangeh?</i>	temporal noun	‘long.time’, used in past.

2.3.3 Relative Order of SVO in Imperative Sentences

SVO order is observed in imperative sentences in Ske. Positive and negative imperatives are similar in that the verb is inflected for future tense. In negative imperatives, the verb is marked for mood as well. It is extremely common, if not universal, in imperative sentences for the subject pronoun to be suppressed (König & Siemund 2007: 304). In Ske, positive and negative imperatives always include the subject marker, though the subject pronoun or lexical subject NP is not found.

A positive imperative in (45) shows the verb inflected for tense:

- (45) *tĩ=me en=ne*
 2SG.FUT=come place=PROX2
 ‘Come here!’

In (46) a child is instructed what not to do with a balloon. The spoken form is reduced: *kare tĩ=mwo* and is always pronounced *katmwo*:

- (46) *kare tĩ=mwó sone ba lalvwa-m*
 NEG 2SG.FUT=IRR put.in.TR go mouth-2SG.POSS
 ‘Don’t put it in your mouth.’ (dt-b19-141)

Positive and negative imperatives address a second person subject, which in Ske can be distinguished for singular, dual and plural number. In (47) below, the subject is specified for all number distinctions in the future tense.

- (47) *kare ti/dria/dvie=mwó gne!*
 NEG 2SG.FUT/ 2DU.FUT/ 2PL.FUT=IRR eat.TR
 ‘Don’t (i.e. you shouldn’t) eat (it)!’

Closely related to imperatives sentences cross-linguistically are constructions for expressing other directive speech acts, including warnings (or monitories) for which Ske has a special construction. In monitory constructions in Ske word order is still SVO, however the echo subject marker *la* ‘ES’⁴, used in a dependent clause, appears in the place of the subject marker. The echo subject marker is specified for the same number distinctions as other subject pronouns (single, dual and plural) but does not express tense-aspect categories. In (48) the subject is second person singular, in (49) dual, and in (50) plural.

- (48) *kare la=peh me zvan o!*
 NEG ES=fall come down hey!
 ‘Hey! Don’t fall’ (from a tree, said by speaker on ground)

- (49) *kare la=ra peh ba la ri o!*
 NEG ES=du fall go at water hey!
 ‘Hey! Don’t (you two) fall in the water!’

- (50) *kare la=ve peh ba la ri o!*
 NEG ES=PL fall go in water hey!
 ‘Hey! Don’t (you three/more) fall in the water!’

The echo subject marker *la* usually appears in a co-subordination construction where the subject pronoun in the first verb phrase contains tense-aspect information which is carried over into the second phrase (Van Vallin & LaPolla 1997). However in the above monitory constructions there is no tense/aspect information and *kare* appears in the syntactic position which would normally be occupied by a verb marked for person/tense/aspect.

⁴Thieberger (2006) reported that echo subject markers are typically found in southern Vanuatu languages, including Sye and Lenakel but had not been reported in northern/central Vanuatu languages except for South Efate (Thieberger 2006). Ske is another exception and potentially Sa too (Andrew Gray, p.c)

2.3.4 Relative Order of SVO in Negative Sentences

SVO order is also observed in negative sentences. Negation is formulated with the negative particle *kare* 'NEG'. The negative particle may appear before or after the lexical subject NP or pronoun with the same meaning and scope, but must appear before the subject marker.

In (51) the negator *kare* occurs immediately before the subject marker:

- (51) *kare* *a=kit=ne* *ver* *ba* *lo-n* *loq*
 NEG 3SG.PFV=put=TR cabbage go inside-CONST laplap
 'He didn't put any cabbage in the laplap.'

In (52) *kare* occurs before the lexical subject NP:

- (52) *kare* *leng* *m=rivriv*
 NEG wind 3SG.IPFV=REDUP~blow.INT
 'The wind isn't blowing.' (jt-b6-53)

And in (53) the lexical subject occurs before *kare*:

- (53) *Lessian* *kare* *a=um=ne* *ze* *loq*
 L NEG 3SG.PFV=do=TR ART laplap
 'Lessian didn't make any laplap.' (pt-b19-43)

Kare is a general negator and negates propositions in verbal predicates and nominal predicates, it does not negate existential propositions; instead, the negative existential verb *tnia* is used.

In (54) the woman referred to is not the man's wife (in a traditional or kastom story the woman's form has been adopted by a spirit) and when the man realises this, he exclaims the sentence below. The meaning is thus, 'this is not my wife' rather than if the negative existential were used, in which case the meaning would be 'I have no wife'.

- (54) *kare* *dado-q* *na-n=dae*
 NEG wife-1SG. EXC.POSS ASSOC-CONST=DIST
 ‘It’s not my wife there.’ (ek-tr1-3)

2.3.5 Other Word Orders

The unmarked word order is SVO and SVO is also found in non-declarative speech acts, as discussed above. Pragmatically marked sentences can appear to have OV order, however this is topic-fronting, where the topic always precedes the focus. Subjects and objects can appear in this position, as well as adjuncts. In discourse, elements in topic position are usually modified by a demonstrative and often in combination with a construction involving the associative suffix *na-*. These constructions are discussed further in (3.7.2). The conjunction *ae* ‘CONJ’⁵ always marks the topic, occurring between it and the main clause.

In (55) the object is in topic position:

- (55) *maqot=nam* *ae* *Jonas* *a=sakrene* *mni*
 mat=PROX.ADDR CONJ J 3SG.PFV=give.TR BEN
nó
 1SG.EXCL.IND
 ‘That mat by you, Jonas gave it to me.’

In (56) the subject is in topic position:

- (56) *azó* *en=dae* *ae* *m=um* *ra-n* *srek*
 man place=DIST CONJ 3SG.IPFV=work on-CONST field
 ‘The man over there, he works at the airport.’

In (57) the example is from a text: a translation of a Sunday School book for children. The locative adjunct is in focus position.

If this slot is filled, that is, if a lexical NP or pronominal argument appears before the verb in focus position, it is ungrammatical for it to be overt as well in the unmarked

⁵ The conjunction *ae* usually occurs between coordinated NPs and VPs, but also has this function of marking topic. See also example (114) of this chapter for a different construction with similar functions to that described above.

position (the subject marker must always occur). This suggests that the focus position is not extra-clausal.

- (57) *ra-n* *waló-n* *róbwet* *na-n* *en* *ae*
on-CONST back-CONST book ASSOC-CONST place CONJ
dvie=si *dol* *hurhur-an* *ne* *m=me*
2PL.FUT=write word REDUP~study-NMLZ REL 3SG.IPFV=come
lo-n *Jon 13.15*
in-CONST Jon 13.15
‘On the back of the book here, write the teaching which comes in Jon 13:15.’
(pt-yumib1-22)

Other word orders occur in cleft sentences. The cleft sentence is introduced by the third plural perfective form of the copula verb: *avé* ‘3PL.PFV.be’ (see example 113).

2.3.6 Constituent Order Correlations at the Clause Level

Except for the order of content-question expressions relative to the verb, as seen above, Ske exhibits characteristics expected of it as an SVO language.

2.3.6.1 Verbs and Adjuncts

When in unmarked position, oblique arguments occur after the verb, typical of VO languages. The example in (58) illustrates this order.

- (58) **VP** **PP**
vnó *nier* *be=du* *lal* *dieb*
village PL 3PL.IPFV=exist at bush
‘There are villages in the bush.’ (nm-b15-28)

PPs and other adjuncts which are NPs occur on the same side of the verb as the object: in SVO languages, this means following the verb. In (59) two adjuncts: a PP and an NP follow the verb.

- (59)
- | | | | | | |
|---------------|-------------|----------------|-----------|-----------|--------------------|
| | | | [PP] | | [NP] |
| <i>dalmwo</i> | <i>nier</i> | <i>be=loh</i> | <i>la</i> | <i>ri</i> | <i>bamriaq=dae</i> |
| boy | PL | 3PL.IPFV=bathe | at | river | uphill=DIST |
- ‘The men wash in the river, uphill there.’ (st-b15-99)

2.3.6.2 Predicate and Copula

Ske has a copula verb *bé* which precedes the predicate, in line with VO languages. The position of the copula preceding a nominal predicate ‘teacher’ is in (60):

- (60)
- | | | | | |
|-----------------|--------------|------------|----------------|---------------------|
| | COP | [| NP PRED |] |
| <i>Tabisini</i> | <i>m=bé</i> | <i>azó</i> | <i>na-n</i> | <i>sa~sahrak-an</i> |
| T | 3SG.IPFV=COP | man | ASSOC-CONST | REDUP~teach-NMLZ |
- ‘Tabisini is a teacher.’

The example in (60) above shows an inclusory relation. The copula is not used in equational clauses; equational clauses are verbless clauses.

2.3.6.3 Main Clause and Dependent Clauses

With respect to subordinate clauses, three types of clauses are discussed here following Thompson, Longacre & Hwang (2007: 238): adverbial clauses and complement clauses, looked at in this section, and relative clauses, looked at in the section on noun phrase structure (2.4.2) to follow. In VO languages the subordinate clause more often follows the main clause and this is so in Ske. The example in (61) shows the subordinate clause, here an adverbial clause expressing reason, following the main clause and also that the subordinator *logane* ‘because’ precedes the subordinate clause. The order of subordinator preceding the subordinating clause is a strong correlation in VO languages.

(61)	MAIN CL			[SUB	CLAUSE	
	<i>mwál</i>	<i>tés</i>	<i>mwe=gne</i>	<i>gwav</i>	<i>logane</i>	<i>lvwó-n</i>
	child	small	3SG.IPFV=eat.TR	guava	because	tooth-3SG.POSS
]					
	<i>mwe=kkol</i>					
	3SG.IPFV=strong					
	‘The child is eating guava because his teeth are strong.’(2008-11-12-039au-ek)					

Adverbial subordinators and the clause types they introduce are summarised below:

Table 2.6 Adverbial Subordinators

Form	Gloss	Subordinator for clause-type:
<i>loga(ne)</i>	‘because’	Introduces adverbial clauses of reason
<i>taron qa-ne</i>	‘when/while’	Introduces temporal adverbial clauses
<i>m=ge (qa-ne)</i>	‘like’	Introduces manner adverbials (and adverbial clauses)
<i>qa-ne (na)</i>	‘if’	Introduces conditional clauses
<i>ót plios</i>	‘no matter/even if’	Introduces concessive conditional clause
<i>lalvie-n (qa-ne)</i>	‘for’	Introduces purpose adverbials (and adverbial clauses)
<i>aglo</i>	‘otherwise/lest’	Introduces purpose adverbial clause
<i>niqaze (ne)</i>	‘until (the time that)’	Introduces temporal adverbial clause

The manner adverbial subordinator *m=ge (qa-ne)* is a minimally a bi-morphemic form and *ge* is a verb. It can introduce a noun phrase or a clause. *Qa-ne* occurs either obligatorily or optionally after all the adverbial subordinators, except for *ót plios* ‘even if’ and *aglo* ‘lest’. The complementiser *na* often occurs after *qa-ne* in conditional clauses. The subordinator in purpose adverbial clauses *lalvie-* is a bound

Class I preposition. When introducing an adverbial phrase, it can only take the third singular possessive suffix *-n*.

Regarding complement clauses and main clauses, again, Ske follows more typical SVO order where the complement clause follows the main clause and also follows the complementiser. In (62) these orders are illustrated.

- (62) **MAIN CL** **[COMP CLAUSE]**
- bwóblievuk a=zodme na de=gze mwu*
- dog 3SG.PFV=think COMP 3SG.FUT=bite.TR chicken
- ‘The dog thought that it would bite a chicken.’ (ec-b9-27)

The table below summarises commonly used complement taking predicates (CTPs) in Ske according to type:

Table 2.7 Complement Taking Predicates (CTPs)

CTP type	Form	Gloss	Complementiser
Utterance	<i>bet/bne</i>	‘sayINTR/TR’	<i>na</i>
	<i>kie</i>	‘shout.INTR’	<i>na</i>
	<i>wre</i>	‘call.TR’	<i>na</i>
	<i>wsi</i>	‘ask.TR’	<i>na</i>
	<i>lngi</i>	‘promise.TR’	<i>na</i>
Propositional Attitude	<i>dodme</i>	‘think.TR’	<i>na</i>
	<i>rongkare</i>	‘believe.TR’	<i>na</i>
Pretence	<i>ngolzovzov</i>	‘pretend.INTR’	<i>na</i>
Evaluative	<i>bis</i>	‘be.good’	<i>na</i>
	<i>mwor</i>	‘agree.INTR’	<i>na</i>
Knowledge/acquisition	<i>glia</i>	‘know.TR’	<i>na</i>

of knowledge			
	<i>gialpohe</i>	‘be.sure.TR’	<i>na</i>
	<i>rongpohe</i>	‘understand.TR’	<i>na</i>
	<i>topohe</i>	‘find.out/realize.TR’ ,	<i>na</i>
	<i>dotpohe</i>	‘remember.TR’	<i>na</i>
	<i>mliene</i>	‘forget.TR’	<i>na</i>
	<i>lse</i>	‘see.TR’	<i>na</i>
	<i>lehpoh</i>	‘notice.TR’	<i>na</i>
	<i>rngo</i>	‘hear.TR’	<i>na</i>
Desiderative	<i>dorngi</i>	‘want/like.TR’	<i>na</i>
	<i>dorngi sru</i>	‘wish/hope.TR’	<i>na</i>
Achievement	<i>glia</i>	‘be.able.TR’	<i>na</i>
	<i>lehtovne</i>	‘try.TR’	<i>na</i>
	<i>wartovne</i>	‘try.to.call.TR’	<i>na</i>
	<i>uhtovne</i>	‘try.to’ask.TR’	<i>na</i>
Negative	<i>NEG + dorngi</i>	‘not.want/like’	<i>na</i>

In most cases, the complementiser *na* introduces the complement clause. In those cases where *na* is not used *qa-ne* introduces the next clause. The list above is not exhaustive: as can be seen, forming compounds with an intransitive verb and *pohe* or *tovne* as stems is a highly-productive system of verb-formation. In all instances, the subordinated clause follows the main clause and is set off by a complementiser appearing before the subordinate clause.

The echo subject marker *la=* is found in other types of dependent clause, i.e. ‘clauses that are grammatically dependent on another clause or some element in another clause’ (Thompson, Longacre & Hwang (2007: 237), specifically in ES clauses there is operator sharing (Van Valin & LaPolla 1997). A typical function of the echo subject marker is thus in cosubordinated clauses which express simultaneous or subsequent actions, although it also has other functions. Although the dependent clause is dependent on the main clause for tense-aspect information, the echo subject is specified for number⁶. The dependent clause follows the main clause.

In (63) the echo subject is unmarked for singular number and the cosubordinated clause depends on the main clause for tense-marking. The event of shattering is subsequent to the glass’s falling.

(63)					MAIN CL
	<i>ti=rarae</i>	<i>aglo</i>	<i>kzo-n</i>	<i>ri</i>	<i>de=peh</i>
	2SG.FUT=be.careful	lest	container-CONST	water	3SG.FUT=fall
	DEP CL				
	<i>ae</i>	<i>la=mser</i>			
	and	ES=shatter			
	‘Look out or the water bottle will fall and shatter.’ (pt-bb9-17)				

In (64) the ES marker is specified for plural number and again relies on the main clause for tense aspect information. Here the two events occur simultaneously on the daily walk home from school. Again, the dependent clause follows the main clause.

(64)	MAIN CL			DEP CL	
	<i>mwal</i>	<i>nier</i>	<i>be=wrut</i>	<i>la=ve</i>	<i>sao~sao</i>
	child	PL	3PL.IPFV=walk	ES=PL	REDUP~sing
	‘The children walk and sing.’ (pt-b15-01)				

There is cross-linguistic variation in which types of dependent clause follow the main clause: conditional clauses have a universal tendency to precede the main clause and

⁶ Switch-subject reference is possible with the echo subject marker, if subject and object of the main clause differ in number. Number marking in the echo subject indicates which is the ‘echoed’ subject in the dependent clause.

Ske conditional clauses are no exception. Conditional clauses are introduced by *qane* ‘if’ and in negative conditionals, as in (65) below, the complementiser *na* appears before the negative word *kare*.

- (65) **COND CL**
- | | | | | | |
|-------------|-----------|-------------|--------------------|------------------|-----------|
| <i>qane</i> | <i>na</i> | <i>kare</i> | <i>mwade=siel</i> | <i>ringbwóng</i> | <i>ae</i> |
| if | COMP | NEG | 1SG.EXC.FUT=garden | tomorrow | CONJ |
- MAIN CL**
- | | |
|--------------------|-------------|
| <i>mwadve=gne</i> | <i>ske?</i> |
| 1PL.EXC.FUT=eat.TR | what? |
- ‘If I don’t garden tomorrow, what will we eat?’ (pt-b5-51)

In (66) the concessive conditional clause occurs before the main clause. Jonas and I had moved the solar panel from outside the house due to the rain and into the porch; Jonas was checking the power indicator:

- (66) **COND CL**
- | | | | | |
|-----------------|-----------|--------------|-------------|------------|
| <i>ót plios</i> | <i>ne</i> | <i>m=we</i> | <i>va-n</i> | <i>kav</i> |
| even.though | SUB | 3SG.IPFV=lie | under-CONST | iron.roof |
- MAIN CL**
- | | | | |
|-----------|-----------------|---------------|--------------|
| <i>be</i> | <i>mwarvo-n</i> | <i>m=me</i> | <i>pamli</i> |
| but | power-3SG.POSS | 3SG.POSS=come | return |
- ‘Even though it is lying under the iron roof, it is re-charging.’ (jt-b16-3)

The order subordinator followed subordinate clause is typical for SVO languages; this order is exhibited in Ske, as shown in examples above including (66) and (67).

2.3.6.4 Verb and Tense-Aspect Particles

When the position of tense-aspect particles is determined in relation to the verb, as in Ske, they tend to precede the verb in both VO and OV languages. Ske tense-aspect particles occur before the verb. They are clitics with portmanteau meanings and are referred to here as subject markers or subject pronouns. Most forms are not analysable, such as second person singular forms in perfective and imperfective aspect, as in (67) and (68).

- (67) *kmwe=ba ebe?*
 2SG.IPFV=go where?
 ‘Where are you going?’
- (68) *ki=me ze ebe?*
 2SG.IPFV=come SOURCE where?
 ‘Where have you come from?/Where are you coming from?’

A table showing subject pronouns is given in (2.6.1).

It has been highlighted already that here are two sets of pronouns in Ske: subject pronouns which occur obligatorily before the verb and optional independent pronouns (section 2.4.1).

There is discussion on the subject of whether pronouns should be classed as pronouns or agreement markers or on a continuum between the two. Indeed, independent pronouns, in their forms, resemble Ske possessive suffixes. Also in Ske, unlike in some Oceanic languages, there is no object-marking on verbs; the independent pronouns perform this function when the object is stressed. When present, they must agree in person and number categories with the subject pronouns.

The literature on this subject is expansive and the topic will not be developed further here, but is highlighted as a rich area for analysis of the question of the pronoun-agreement dichotomy or cline.

2.4 Phrase Structure

This section looks at constituent order correlations at the level of the phrase in order to analyse Ske from a typological perspective⁷.

2.4.1 Genitive Construction and Noun

Dryer (2007: 87) observes that of languages that employ distinct constructions for direct and indirect possession expressions, there is a subset in which the order of genitive and noun is different for each construction.

⁷ A full grammar sketch is not requested under the SOAS Field Linguistics Programme, therefore it is the aim that analysis of Ske grammar from a typological perspective will enable cross-linguistic analysis that would prove more difficult if the sketch was only descriptive.

Possessive relations in Ske are expressed using three types of constructions: direct and indirect and a third type of construction is also found in Ske which resembles that in Apma, spoken possession to the north of the Ske area, which Schneider (2010) refers to as the ‘associative construction’. It is acknowledged in other Vanuatu languages where it is used to express ‘characteristic’ or ‘passive’ (2.5.1.3) possession (Palmer 2005; Lynch 2001).

In direct and indirect constructions, possessive pronouns specify the possessor for person distinctions and number, as shown in the table below. They do not specify dual number, like subject markers, only singular and non-singular number.

Table 2.8 Possessive Pronoun Suffixes

	Singular	Non-singular/PL
1 excl	<i>-q</i>	<i>-mwam</i>
1 incl		<i>-d</i>
2	<i>-m</i>	<i>-mi</i>
3	<i>-n</i>	<i>-r</i>

When a noun is directly or inalienably possessed, there is ‘an element of inseparability’ in the relationship (Crowley 1996: 386). Typically, directly-possessed nouns include body parts but also kinship terms⁸ and physical objects or spaces which are important to the owner. Such nouns are bound forms and possessive marking is obligatory. The construction for direct possession is head-marking, where a possessive pronoun suffix from the table above references the possessor and attaches to the possessed noun. The order is NG (noun, genitive) for direct possession.

In (69) NP ‘child’ is directly-possessed and the possessor follows and in (70) an example of indirect possession for comparison. Both the possessed noun and the possessor noun are overt here and the order is also NG.

⁸ The term for aunt is an exception and occurs in indirect construction with the valuable classifier *blie*, see Vari-Bogiri (2007) on Raga in which the same classifier is used with ‘aunt’.

(69)	N	G(possessor)	(70)	N	G
	<i>[dzo-n</i>	<i>Ron]</i>		<i>bwó blie-n</i>	<i>Jonas</i>
	child-3SG.POSS	R		pig CL.VAL-CONST	J
	‘Ron’s child.’			‘Jonas’s pig.’	

In (71) the possessor is a complex NP, itself a genitive construction (an indirect possessive construction with the general classifier *no-*). The order is NG:

(71)	N				
	<i>qmi</i>	<i>ne</i>	<i>dvie=vsi</i>	<i>[ngia-n</i>	<i>[azó</i>
	2PL.IND	REL	2PL.FUT=hold	hand-CONST	man
	G				
	<i>no-n</i>	<i>kween]]</i>	<i>ae</i>	<i>dvie=por</i>	
	CL.GEN-CONST	queen	and	2PL.FUT=line.up	
	‘You who will shake hands with the queen, stand in line!’				

Indirect possession constructions code various semantic relationships between the possessor and possessed noun. For indirect possession the construction is dependent-marking on a relational classifier. Nouns can appear in constructions with different classifiers which suggests that in Ske, possessive classifiers do not categorise nouns into semantic classes, as posited in some descriptions (Lichtenberk 1985) and refuted in others (Crowley 1996)⁹.

In an example comparable to (69) and where the possessor is expressed by a possessive suffix, the order in the indirect construction is the opposite of the direct construction; the order is GN in (72).

(72)	G	N
	<i>bie-n</i>	<i>ser</i>
	CL.FIRE-3SG.POSS	torch
	‘his torch’	

⁹ Hyslop on N.E Ambae (2001) notes classifiers do not code any characteristics of the possessed noun, however one of the Ske relational classifiers *die* does appear to describe a characteristic of certain nouns (hard-shelled fruit or nuts) otherwise it could express that the possessed item will be cut open by its possessor (Andrew Gray, p.c). See also Franjeh (2012) on possession in N.Ambrym, Vanuatu.

As Dryer (2007: 87) highlights, it is important to note whether when ‘genitive’ is referred to, it is a lexical genitive or a possessive pronoun (or pronominal genitive). In the two examples above, both genitives were possessive pronouns. Indirect possession constructions can be expressed with an overt nominal possessor as well as the construction in (72) above where the possessor is indicated by the pronominal genitive. In languages where possessive relationships can be expressed in both ways, the order is typically the same between the genitive and the noun in both types of expression; in Ske the order is different: lexical genitives occur after the noun and pronominal genitives occur before the noun.

Examples below show indirect constructions with a lexical genitive and a pronominal genitive. In (73) the classifier is *blie-* which marks the possessum for value to the owner or a duty of care the possessor has to the possessed entity. The possessive suffix which attaches to the classifier indicates that the possessor is first person, singular exclusive. The possessum ‘pig’ occurs after the genitive, the order is GN.

(73)	G	N
	<i>blie-q</i>	<i>bwó</i>
	CLASS.VAL-1SG.EXC.POSS	pig
	‘my pig’	

In (74) the possessum ‘yam’ occurs before the classifier, again *blie*, which is marked with the construct suffix¹⁰ and the genitive follows: the order is NG.

(74)	N		G	
	<i>dam</i>	<i>blie-n</i>	<i>Jonas</i>	<i>nier</i>
	yam	CL.VAL-CONST	J	PL
	‘Jonas and others’ yam.’ (Yam in the garden, not yam prepared for eating.)			

¹⁰ In indirect possession constructions where the possessor is a noun (as against a pronoun) the possessed NP is marked with the ‘construct suffix’ *-n* which is identical in form to the ‘3SG.POSS’ suffix. This suffix is used whether the nominal possessor is singular or plural: the nouns it attaches to are bound and take an obligatory possessive suffix, but it would be ungrammatical to have a plural possessive suffix when the overt possessor is plural. In overt nominal possession, the suffix therefore does not reference the possessor. This form is typical of Micronesian and Eastern Melanesian languages (Lynch, Ross & Crowley 2002: 41).

In both direct and indirect possession constructions, it is understood that one entity is owned and one entity is the owner. Relationships expressed by the associative constructions are less hierarchical. Rather, there is a strong association between the two entities¹¹. Some body-products or organs (Crowley 2006) take part in possessive constructions as well as part-whole relationships and locational terms. In (75) below the relationship of flowers to a tree is expressed using the associative construction. The order is NG.

(75)	N		G	
	<i>ngiek</i>	<i>na-n</i>	<i>bwa-n</i>	<i>ih</i>
	flower	ASSOC-CONST	head-3SG.POSS	banana
	‘Flowers of the banana tree.’			

Associative constructions also may be expressed with lexical genitives (76) or pronominal genitives (77), however, unlike in the indirect possession constructions, the order is NG in each instance.

(76)	N		G
	<i>zek</i>	<i>na-n</i>	<i>Kay</i>
	behind	ASSOC-CONST	K
	‘behind Kay’		

(77)	N	G
	<i>zek</i>	<i>na-r</i>
	behind	ASSOC-3PL.POSS
	‘behind them’	

Below is a table showing the forms of the relational classifiers in Ske with a brief description of what they encode. The number of classifiers found in Ske is on the larger end of the spectrum of classifier inventories for Oceanic languages (Lynch, Ross & Crowley 2002: 41); there are six in total.

¹¹ In Apma, Schneider (2010) reports that the associative construction must be used when the noun is inanimate, this is also the case in Ske.

Table 2.9 Ske Possessive Classifiers

classifier	description	gloss
<i>no-</i>	general	‘CL.GEN’
<i>mw-</i>	drinkable	‘CL.DR’
<i>a-</i>	edible	‘CL.ED’
<i>blie-</i>	economic or cultural value	‘CL.VAL’
<i>die-</i>	edible item with hard shell (limited use)	‘CL.EDHS’
<i>bie-</i>	fire/light	‘CL.FIRE’

Nouns which take part in direct, or indirect constructions, or both, are found in 2.5.

2.4.2 Noun and Relative Clause

There is a very strong correlation between VO languages and the order of noun followed by relative clause. Ske is typical of VO languages in that the relative clause appears post-head. Relative clauses in Ske are head-external and there is a low degree of grammatical integration between the relative clause and the matrix clause: a verbal predicate in the relative clause is not dependent on the matrix clause for tense-aspect marking, for example, and is similar in structure to the main clause. The head noun may be referenced by a subject marker on the verb, and by a possessive suffix (encoding person and number) on a bound noun or bound preposition in the relative clause. There is no special verbal morphology: relative clauses with verbal predicates are finite, as in main clauses, and there is no morphology to distinguish between the relativised positions of the head noun. All Ske relative clauses are set off by the relativiser *ne* and all positions can be relativised: subject, object and oblique or adjunct. When the oblique or adjunct position has been relativised, case recoverability strategies depend on which class of preposition is in the oblique or adjunct phrase.

In (78) the head noun is *buluk* ‘cow’, a borrowing from Bislama. Here the subject position has been relativised, and is the object in the main clause. The relativiser *ne* sets off the clause and the head noun is referenced by the subject marker which

inflects for third person singular. The order is main clause followed by relative clause.

(78)	MC			RC	
	<i>Jonas</i>	<i>a=wse</i>	<i>buluk</i>	<i>[ne</i>	<i>a=gne</i>
	J	3SG.PFV=kill	cow	REL	3SG.PFV=eat.TR
	<i>blie</i>	<i>-n</i>	<i>bwet]</i>		
	CL.VAL	3SG.POSS	taro		
	‘Jonas killed the cow that ate his taro.’				

In all relative clauses the order is main clause followed by relative clause and the order of relativiser and clause is relativiser followed by relative clause, also shown in (78).

2.4.3 Article and Noun

Ske has an article *ze=* which precedes the noun, the typical order for VO languages (Dryer 2007: 94). The article is a clitic and attaches to the first element of a noun phrase. When *ze=* cliticizes onto a form which is vowel-initial, the vowel in the clitic deletes as in (79) below.

(79)	Art N			
	<i>im=ned</i>	<i>m=vang,</i>	<i>z=azó</i>	<i>a=vihtre</i>
	house=PROX1	3SG.IPFV=burn,	ART=man	3SG.PFV=set.alight.TR
	‘This house is on fire, someone set light to it.’ (cw-b4-42)			

The article attaches to the first element of the NP, which in (80) is the possessive classifier *a* for edible items.

(80)	ART		N
	<i>ti=vsi</i>	<i>z=a-m</i>	<i>loq</i>
	2SG.FUT=hold.TR	ART=CL.ED-2SG.POSS	
	‘Take some/a piece of laplap for you.’		

The article codes non-specificity rather than definiteness.

There are two major subgroups of nouns in Ske: local nouns and general nouns. Only general nouns can be marked by the article *ze=* for non-specificity. Further distributional differences between the major and minor subgroups of noun are discussed in (2.5).

Articles in Ske freely co-occur with demonstratives. Articles are pre-head clitics, demonstratives are post-head clitics.

2.4.4 Demonstrative and Noun

Ske has two sets of demonstratives: demonstratives pronouns and demonstratives which are determiners. They code encode parameters of distance and proximity to an addressee as well as anaphoric reference in discourse and temporal reference. The pronominal forms and modifier forms show partial similarity. Pronominals are words, as shown in (81) and the modifiers, in (82), are clitics which attach to the final element of the noun phrase or relative clause. The example in (83) is ungrammatical as both the proform and the noun are overt.

- (81) *niam!*
DEM.PROX.ADDR
'That one by you!'

- (82) *azio=nam*
knife=PROX.ADDR
'That knife (by you).'

- (83) **azio niam*
knife DEM.PROX.ADDR

When order of demonstrative and noun is discussed, it is the order of the clitics rather than the pronominal forms which is being referred to. In both OV and VO languages the order DemN is more common. In Ske the order is NDem. In (84) the proximal spatial demonstratives, *=ned* 'PROX1' and *=ne* 'PROX2' as well as the anaphoric discourse demonstrative *=no* 'ANA' follow the noun.

- (84)
- | | | | | | |
|-----------------------|-----------------|----------------|-----------------------|----------------|--------------|
| | | | N Dem | | |
| <i>ae</i> | <i>be=vne</i> | <i>na</i> | <i>vet= ne</i> | <i>de=do</i> | <i>nanze</i> |
| CONJ | 3PL.IPFV=say.TR | COMP | stone =PROX2 | 3SG.FUT=sit | now |
| N Dem | | N Dem | | | |
| <i>en=ned.</i> | <i>Ae</i> | <i>be=lngi</i> | <i>vet=no</i> | <i>m=do</i> | |
| place=PROX1 | CONJ | 3PL.IPFV=leave | stone=ANA | 3SG.IPFV=sit | |
| <i>en.</i> | <i>ae</i> | <i>m=do</i> | <i>nadoned</i> | <i>mwaqrek</i> | |
| place | CONJ | 3SG.IPFV | now | today | |
- ‘And they say (that) this stone would stay in this place from now. And so they leave the stone there. And it is there now today.’ (bm-tr3-4)

Further discussion on the distribution and semantics of spatial demonstratives is found in (3.7) and their function in angular spatial expressions is investigated in Chapter 5.

2.4.5 Plural Word and Noun

NPlur order and PlurN are common amongst VO languages (Dryer 2007b: 98). Ske exhibits NPlur order. The plural marker is the same as the third person non-singular independent pronoun *nier*; post-posing of this pronoun to mark plurality is characteristic of Central Vanuatu languages (Lynch 2004: 325).

In (85) *nier* follows *ziamat* ‘woman’ showing N PL order:

- (85) **N PL**
- | | | | |
|---------------|-------------|--------------|------------|
| <i>ziamat</i> | <i>nier</i> | <i>be=ba</i> | <i>loh</i> |
| woman PL | 3PL.IPFV=go | bathe | |
- ‘The women are going bathing.’ (jt-b19-5)

The plural marker does not belong to the same class as quantifiers or numerals: it can co-occur with both categories.

In (86) the plural marker precedes a numeral.

- (86)
- | | | N | PL | Num | |
|--------------|---------------|------------|-------------|------------|---------------|
| <i>ti=ba</i> | <i>la=vsi</i> | <i>bwó</i> | <i>nier</i> | <i>aru</i> | <i>en=dae</i> |
| 2SG.FUT=go | ES=hold.TR | pig | PL | two | place=DIST |
- ‘Go and take hold of the two pigs over there’. (pt-b6-46)

In (87) the plural marker precedes a quantifier.

- (87)
- | N | PL | Quant | | |
|------------|-------------|--------------|---------------|-----------------|
| <i>azó</i> | <i>nier</i> | <i>avut</i> | <i>be=me</i> | <i>Bwaravet</i> |
| man | PL | many | 3PL.IPFV=come | B |
- ‘Lots of people of have come to Bwaravet.’ (cw-b19-6)

Nouns need not be marked for plurality in verbal clauses where the subject-marker is specified for non-singular number and the verb reduplicates. In (88) below, the plural marker is optional for these reasons.

- (88)
- | | | | | |
|-----------|---------------|--------------------|-------------|-----------|
| <i>ul</i> | <i>(nier)</i> | <i>ave=ka~ka</i> | <i>ra-n</i> | <i>ao</i> |
| clothes | (PL) | 3PL.PFV=REDUP~hang | on-CONST | rope |
- ‘The clothes were hanging on the line.’

2.4.6 Adjectival Words and Noun

Semantic adjectives (Dryer 2007b: 165) are words which are descriptive and denote properties such as dimension or colour. They are not defined on the basis of shared syntax, but on the basis of the semantics they express. Oceanic languages typically have a category of words which denote these adjectival properties, but the category may be a separate class of adjectives, be verbs or a subclass of verb, or be nouns (Ross 1998). In Ske, adjectival words are verb-like and noun-like in their morphosyntax and do not constitute a separate class.

Some words which attributively modify nouns in Ske also function predicatively. As an attributive modifier in (89) and as a predicate in (90) *rab* ‘be.new’ takes a subject pronoun. In (91) the predicate *ba* ‘go’ takes the same subject marking as *rab*.

(89) *ul* *a=rab*
 clothes 3SG.PFV=be.new
 ‘new clothes’

(90) *de=rab* *kare*
 3SG.FUT=be.new again
 ‘It will be new again.’

(91) *de=ba* *Santo*
 3SG.FUT=go S
 ‘He will go to Santo.’

Dixon (1977) notes a cross-linguistic tendency that the closed class of adjectives of a language tends to include certain semantic categories over others: dimensions (big, small), colour (red, yellow), age (old, new) and value (good, bad) over words denoting positions, physical property or human propensity (Dixon 1977 in Schachter & Schopen 2007: 14).

In Ske, stative verbs denote these properties. Stative verbs (see 2.6.1.1) can only attribute a property to a noun when marked for perfective aspect (92) otherwise a change of state is expressed (90, 93).

(92) *azó* *a=broh*
 man 3SG.PFV=be.black
 ‘black man’

(93) *bla-n* *Kay* *mwe=rvang*
 skin-CONST K 3SG.IPFV=be.red
 ‘Kay’s skin is going red’

Stative verbs can also modify the noun as part of a relative clause, in which case they take subject markers in the same way as the examples above show.

Some words which express adjectival properties in Ske are noun-like. Nominals with adjectival meanings designate an object as embodying a certain property such as

‘good.one’, or ‘big.one’ as in (94). These forms can also function as nominal predicates following the copula verb *bé* (95) as can other nominals (96).

- (94) *temtónan* *bwó*
 big.one pig
 ‘big pig’

- (95) [NP]
bó en=dae m=bé temtonan
 pig place=DIST 3SG.IPFV=COP big.one
 ‘The pig over there is a big one.’

- (96) [NP
Tabisini m=bé azó na-n
 T 3SG.IPFV=COP man ASSOC-CONST
]
sa~sahrak-an
 REDUP~show.INTR-NMLZ
 ‘Tabisini is a teacher.’

All forms with this distribution attribute properties to nouns and end in *na(-n)*. Other examples are: ‘great.one’ *tamitnan* ‘huge.one’ or *mwaqóznán*. Nouns can be derived from verbs by forming a compound with *na(-n)* (see 2.5.1.3) shown in (97) and from numerals (98).

- (97) *rongna-n* *a=bwóv*
 feel.INTR.ASSOC-CONST 3SG.PFV=be.bad
 ‘Its smell is bad.’

- (98) *va-ziolna-n*
 MULTIP-three.ASSOC-CONST
 ‘Third one/the third of them.’

Whilst nominal derivation with *na(-n)* is productive, derived nouns of this shape do not productively have attributive functions: nouns like *temtónan* ‘big’ belong to a closed subset of nouns: ‘adjectival nouns’.

Commonly used words with adjectival properties are *alok* ‘big’, *tés* ‘small/little’ and *watik* ‘small’, all of which are post-posed to the noun they modify. *Alok* and *watik* have verb-like qualities but do not have predicate syntax like stative verbs.

In (99) *alok* ‘big’ modifies the noun ‘song’, and is *a*-initial, reminiscent of stative verbs marked for perfective aspect (89, 92). The initial *a-* is not a subject marker here: when *alok* functions as the verbal predicate and denotes a change of state in (100), it is first prefixed by the verbalising prefix *g(a)-* and the subject pronoun proclitic attaches to the prefix.

- (99) *sao~sao-an* ***alok*** *nier*
REDUP~sing-NMLZ big PL
‘All the hymns.’ (lit. ‘big songs’)

- (100) *nadoned* *mahlok=ned* ***m=g-alok***
now fish=PROX1 3SG.IPFV=VRBLZR-big
‘This fish is growing now.’ (Of pufferfish)

In (101) below, the reduplicated form of *watik* ‘small’ modifies the head *buk* ‘book’ and in (102) it functions as the predicate in a subordinate clause, marked by the echo subject marker. *Watik* exhibits the syntax of a verbal predicate, unlike *alok*, and like verbs can undergo reduplication. However, like *alok*, *watik* also modifies a noun attributively without subject marking, unlike stative verbs.

- (101) *buk* ***wat~watic*** *kange*
book REDUP~small only
‘Only a very small book.’

- (102) *manra-na-n* *m=me* ***la=watic***
light-ASSOC-3SG.POSS 3SG.IPFV=come ES=small
‘Its light gets small/weaker.’ (pt-b19-86)

Tés ‘small’ modifies a noun attributively (103) like *wakik* and *alok* ‘big’ but is also able to modify verbs, including stative verbs (104) where it functions adverbially.

- (103) *mwal téś*
 child little
 ‘little child/young child’

- (104) *li-n mwe=mrav téś lo-n ren sir*
 hair 3SG.IPFV=long little on-CONST day all
 ‘His hair grows a little every day.’

There is also a verb *tétés* or *ttés* ‘play’ which speakers associate with the adjectival form *tés* ‘small’. Rules of reduplication and phonotactics in Ske would allow for *tés* to reduplicate and derive the two forms of the verb above, in which case *tés* has verb-like properties too. Alternatively, the forms could simply be homophonous.

There is thus no discrete adjectival class in Ske. Some words with adjectival properties are verbs, others are noun-like and finally some have verb-like qualities and these are probably derived from verbs in a former stage of the language (Ross 1998).

Degree words are able to modify adjectival forms. Degree words which modify stative verbs are adverbial forms. There is a small discrete class of adverbs in Ske which express degree notions such as *sahlu* ‘really’ or *zvwor* ‘too much’ and other concepts such as *kievkiev* ‘quickly’. Adverbial forms have much in common with verbs and ‘extended forms’ being are post-posed to the verb and preceding the transitivity enclitic *=ne* like SVCs. Because of their formal similarities, adverbial forms and extended forms are discussed further in (see 2.6.6) A small set of degree words may also modify the adjectival form *alok*; these include *karet* ‘too’ and they follow the noun.

2.4.7 Numeral and Noun

NNum and NumN are common among VO and OV languages.

The order of cardinal number and noun rather than ordinal numbers and noun is relevant to word order comparisons. Ske numerals are a subclass of the class of

quantifiers; numerals and some quantifiers can accept morphology which derives a verb and other morphology to derive nouns, while others have vestigial verbal morphology (Lynch, Ross & Crowley 2002: 39). All quantifiers, either when derived or in base form (such as *sir* ‘all/every.one’) can function as NP heads.

When Ske numerals modify a noun they are post-posed to it. In (105) the cardinal numeral follows the noun ‘grandchild’.

- (105)
- | | | | | |
|---------------------------|--------------------|-----------------|------------|--------------------------|
| | | | | N |
| <i>ngoh</i> ¹² | <i>mwe=lse</i> | <i>nier,</i> | <i>‘oh</i> | <i>mébé-q</i> |
| ngoh | 3SG.IPFV=see.TR | PL, | ‘oh | grandchild-1SG.EXCL.POSS |
| Num | | | | |
| <i>aru,</i> | <i>mwa=rngo</i> | <i>a=bis</i> | | <i>ne</i> |
| two, | 1SG.EXCL.IPFV=feel | 3SG.PFV=be.good | | REL |
| <i>qane</i> | <i>mria=me’</i> | | | |
| that | 2DU.IPFV=come | | | |
- ‘The ngoh sees them, “oh, my two grandchildren, I feel good because you have come.”’ (2008-10-31-0025-au-ec)

A plural marker is not required when a noun is marked for number. When the head noun is marked for plurality or modified by an adjectival form, the numeral may be part of a relative clause, as in (106).

- (106)
- | | | | | | | |
|--------------|-------------|-----------|-----------------------|-------------|--------------|--|
| N | | | [RELC | Num] | | |
| <i>azio</i> | <i>nier</i> | <i>ne</i> | <i>aru=nam</i> | <i>ae</i> | <i>no-n</i> | |
| knife | PL | REL | two=PROX.ADDR | CONJ | CL.GEN-CONST | |
| <i>Jonas</i> | | | | | | |
| J | | | | | | |
- ‘Those two knives (by you) are Jonas’s.’ (pt-b9-63)

The subclass of numerals in Ske consists of: cardinal and ordinal numbers, (which are derived from cardinals except for *tabzón* ‘first’ which is suppletively related to the cardinal number *alvwal* ‘one’); multiplicatives, and; a final set of paired numbers,

¹² The *ngoh* is a figure from traditional stories in Pentecost and around other areas of Vanuatu. He has long, straggly hair and eats children.

expressing ‘in twos’ or ‘two each’. Of these, only the cardinal and paired numbers can function as nominal modifiers; grouped numbers also are post-posed to the head.

Grouped numbers are derived from cardinal numbers by reduplication. In (107) below, *aruru* or *arru* ‘in.twos’ modifies the noun ‘mobile phone’.

- (107) *azó na-n Digicel ave=sakrene taoel mni*
 man ASSOC-CONST D 3PL.PFV=give.TR towel BEN
azó nier ne ave=gle mobaelfon arru
 man PL REL 3PL.PFV=buy.TR mobile.phone two.two
 ‘The man from Digicel gave a towel to everyone who bought mobile
 phones in twos/two phones each’ (nm-b19-85)

2.4.8 Affix Order (nominal and verbal affixes)

In VO languages it is common for suffixes and prefixes to be found (Dryer 2007: 110). The affixes which are found in Ske are of both types. Ske has a transitive suffix *-si* and nominalising suffix *-an*. The possessive affixes which attach to bound nouns are also suffixes and *-qze* is a nominal suffix which attaches to bound nouns to derive an unpossessed, generalised noun. Ske has a verbalising prefix *g(a)-* (to describe a cardinal number of entities), a nominalising prefix *b(a)-* (with the meaning of ‘number of times’), and a multiplicative prefix *v(a)* which expresses ‘third/fourth one’ and are quantifier prefixes. Suffixes are used with more frequency than prefixes.

In (108) the prefix *g(a)-* precedes the quantifier *(a)vut* ‘many’ to derive a cardinal number or set of items. The subject marker, which only precedes verbs, here precedes the verbalising prefix and *avut* ‘many’.

- (108) *kare a=ga-vut, ih a= ga-vih knie*
 NEG 3S.PFV=CARD-many banana 3S.PFV= CARD-few only
 ‘There weren’t many, only a few bananas’ (lt-b9-16)

In (109) the transitivity suffix *-si* attaches to the intransitive verb *deng* ‘cry’. Verb transitivity is discussed further in section (2.6.6).

- (109) *m=deng-si*
 3SG.IPFV=cry-TR
 ‘He is crying for (someone/something).’

(In 110) the nominalising suffix *-an* attaches to the intransitive verb *um* ‘work’ in the second utterance of the verb; in the first utterance the enclitic *=ne* attaches to the verb to license a direct object.

- (110) *mwade=um=ne* *no-q* *um-an*
 1SG.EXCL.FUT=work==TR CL.GEN-1SG.EXCL.POSS work-NMLZ
 ‘I will/I’m going to do my work.’

2.5 Nouns

Nouns and verbs are the two major groups of words in Ske. This section will establish nouns as a word group and go on to identify the different classes of nouns. Nouns from the two major sub-groups, including derived nouns, will be discussed. Independent pronouns can also function as NP heads. They were summarised in (2.3.1) and will not be discussed further here. The two major sub-groups of nouns are: general nouns and local nouns.

Ske nouns have been identified as a word group on the basis of their distribution and their grammatical functions: all nouns can be modified by a demonstrative; they may function as arguments of verbs or as heads of adjuncts with locative or temporal semantics or be marked for other semantic roles. Most can participate in genitive constructions or be specified for number and definiteness. Nouns cannot be marked for tense-aspect distinctions. They can all be marked by prepositions, although there are restrictions, which are semantically defined, on which nouns can occur with which prepositions.

When we move to discuss the sub-group of local nouns which includes the geocentric terms, such as *batniaq* ‘uphill’ and *basiv* ‘up’, we see there are many restrictions on where these relational local nouns occur. In fact they only occur in adjuncts where they are never marked by a preposition. It could be suggested that they are classed as adverbs, modifying a verb phrase as locative or directional adverbial particles. However, this is unsatisfactory as forms which function adverbially in Ske and are

referred to as adverbs or extended forms (section 2.6.6) always occur within the verb complex: after the verb and before transitivity clitic =*ne* and the introduced object. The relational local nouns cannot occur in this position. It is likely that the problematic classification on this subgroup of noun, because of these restrictions, is due to their origins: they are derived from other categories of word, such as verbs. This situation of varied origins and problematic categorization is not uncommon in Oceanic languages and presents well-acknowledged issues, as the section on prepositions (2.7) also demonstrates.

Table 2.10 Noun Classes

General	Proper	Kinship	Free Bound
		Personal	
	Common	Free Bound	
	Derived		
Local	Locational	Geographic	Placenames Topographical
		Relational	Geocentric Positional Non-specific

2.5.1 General Nouns

The main distinction between general nouns and local nouns is that general nouns can occur as subject and objects of verbal predicates in addition to verbal predicates from the existential verb and the postural/positional set of verbs. Other differences are that general nouns:

- can be relativised on by a relative clause;
- occur in all three types of genitive construction (direct and indirect possession and in the associative construction). Whilst nouns typically subcategorize for

these constructions there are situations in which the type of structure is determined on the grounds of semantics, which is not the case for local nouns;

- they can be marked for plural number;
- are marked by prepositions in adjuncts (for roles such as beneficiary, instrumental, location, etc.);
- can occur as nominal predicates accompanied by copula.

In (111) the general noun *leng* ‘wind’ functions as the subject and another general noun, *waq* ‘ship’, as the object of the verb *rvi* ‘blow.TR’.

(111)	S		O
	<i>leng</i>	<i>mwe=rvi</i>	<i>waq</i>
	wind	3SG.IPFV=blow.TR	ship
	‘The wind blows the ship.’		

And in (112) a general noun *zaha* ‘husband’ functions as subject.

(112)	S			
	<i>zaha-n</i>	<i>m=ba,</i>	<i>m=ba</i>	<i>lalót</i>
	husband-3SG.POSS	3SG.IPFV=go	3SG.IPFV=go	garden
	‘Her husband goes, he goes to the garden.’ 2008-10-31-00021au-ek)			

General nouns can function as the head of the NP which is modified by a relative clause; in (113) the general noun *bwet* ‘taro’ is the NP head in a cleft sentence.

(113)		N		RELC
	<i>a=vé</i>	<i>bwet</i>	<i>nanze=ned</i>	<i>[ne buluk</i>
	3SG.PFV=COP	taro	now=PROX1	REL cow
	<i>a=gne]</i>			
	3SG.PFV=eat.TR			
	‘It was this taro which the cow ate.’			

There are differences within the subgroups of general nouns as to what types of genitive construction a noun may occur in. In the case of derived nouns in possessive expressions and the associative construction, the semantics expressed are quite

different to those when other general nouns participate in the construction. Genitive constructions which a subgroup of noun may occur in are discussed in the relevant subsections to follow.

In section (2.4.5) above on plural word and noun order, many examples of plural marking on general nouns were given, below a free kinship term ‘grandparent’, from a subgroup of general noun, is marked for plural number (114).

- (114) *ttu* *nier=dae*, *mra=ba* *ebe*
 grandparent PL=DIST 3DU.IPFV=go where
 ‘Where are the grandparents over there going?’ (pt-b11-8)

In (115) the general noun is marked by the Class I preposition *lalvie*, here marking its object as Goal. Local nouns are not marked by *lalvie* for the role of Goal; they may be marked by the preposition *ne* for Goal, but often occur without prepositional marking.

- (115) *m=ba* *lalvie-n* *zial* *liapet*
 3SG.IPFV=go GOAL-CONST sun seven
 ‘It’s approaching 7 o’clock’ (ht-b13-99)

In (116) general nouns *ab* ‘fire’ and *Minnie*, from the sub-group of proper nouns, are coordinated NPs, joined by the conjunction *ae* ‘CONJ’. Both nouns are within the scope of the preposition *tnie* ‘ABL’ which marks them for the role of Source.

- (116) *a=me* *tnie* *Minnie* *ae* *ab*
 3SG.PFV=come ABL M CONJ fire
 ‘He came (this way) away from Minnie and the fire.’

In (117) the common noun denoting a location *dieb* ‘bush’ is the object of a preposition in a locative adjunct. A locative adjunct in which a common noun occurs is ungrammatical without a preposition (118).

- (117) *vnó* *nér* *be=du* *lal* *dieb*
 village PL 3PL.IPFV=exist at bush
 ‘There are lots of villages in the bush.’ (pt-b19-28)

- (118) **vnó nér be=du dieb*
village PL 3PL.IPFV=exist bush

This is a diagnostic for whether a noun is a local noun or not. Local nouns are not marked by prepositions in adjuncts specifying location (119), and see section (2.5.2).

- (119) *m=du ebe/Bwaravet/bamriaq/lik*
3SG.IPFV=exist where/B/uphill/east.coast.pentecost
‘He is where?/ in Bwaravet/uphill/ on the east coast of Pentecost.’

Common nouns denoting people or jobs, some characteristics (e.g. *bwiar* ‘crazy’ or *bwavwon* ‘clueless’¹³), names for ranks of entities such as levels of chief or grades of pig, can function as nominal predicates accompanied by the copula *bé*. In (120) ‘child’ *mwál* is the nominal predicate and in (121) one of the grades of pig *bwóavsal* is a nominal predicate accompanied by the copula in an echo subject construction.

- (120) *karze m=bé mwál*
no.longer 3SG.IPFV=COP child
‘He/she’s no longer a child.’(pt-b14-3)

- (121) *lvwó-n m=sektre ae ranmalien*
tooth-3SG.POSS 3SG.IPFV=come.out.TR CONJ after
bwóavuot ae m=me la=bé bwóavsal
grade.pig CONJ 3SG.IPFV=come ES=COP grade.pig
‘Its teeth come out (pierce through) and after *bwóavuot* it becomes *bwóavsal*.’
(ec-b13-10)

General nouns are further split into sub-classes of: proper nouns (2.5.1.1) (comprising personal nouns and kinship terms); common nouns (2.5.1.2) (comprising directly and indirectly possessed nouns) and finally, derived nouns (2.5.1.3).

¹³ Words denoting these characteristics can occur in genitive constructions and are classed as nouns.

2.5.1.1 Proper Nouns

Proper nouns can be differentiated from common nouns on semantic grounds in that, unlike common nouns, they refer to a unique entity (except when the general suffix -*qze* attaches to bound forms) rather than a class of entities. However, there are also important syntactic and pragmatic differences between these two classes. Proper nouns:

- select the interrogative *sien* ‘who’ only;
- can also be used as vocatives, i.e. in exclamations or in isolation;
- be both directly and indirectly possessed, like common nouns, however there are greater restrictions on the types of classifier they can occur with (only the general possession classifier, with one exception);
- can occur in adjuncts and be marked by prepositions for roles such as beneficiary, recipient, accompaniment, goal, etc. but they cannot occur in temporal adjuncts or be marked for instrumental role;
- cannot be determined by the article *ze*;
- cannot be modified by adjectival forms *alok* ‘big’ and *tés* ‘small/little’.

All nouns can be modified by a demonstrative and proper nouns can function as arguments of verbal predicates. In (122) the kinship term is modified by the distal demonstrative and serves as the subject of a verb.

(122)	N	Dem	Pred	
	<i>seze</i> ¹⁴	<i>-m=dae</i>	<i>m=zir</i>	<i>mwodu?</i>
	opposite.gender-2SG.POSS=	DIST	3SG.IPFV=be.ill	still
	‘Is your sister there still sick?’			

The interrogative expression *sien* ‘who?’ is selected by proper nouns as in (123):

(123)	<i>a=vé</i>	<i>sien?</i>	<i>avé</i>	<i>Minnie/dahe-q</i>
	3SG.PFV=COP	who?	3SG.PFV=COP	Minnie/ mother-1SG.EXCL.POSS
	‘Who was it?’		‘It was Minnie/my mother.’	

¹⁴ This term *seze* ‘opposite.sex’ means opposite gender to that of speaker and is used to refer to a friend or sister or brother. See Table 2.11 below.

(124) *blie-q* *wwa!* *Ti=me* *hó!*
 CL.VAL-1SG.EXC.POSS aunt! 2SG.FUT=come EXCLM
 ‘Auntie! Come over here!’ (pt-b11-8)

(125) *seze-q!* *kmwe=ksa* *ze?*
 opposite.gender-1SG.EXCL.POSS 2SG.IPFV=happen COMPL
 ‘Sister/brother/friend! What’s going on? /What are you upto?’

(126) *Jif Wili* *a=tene* *ngiek* *lia-n* *Andrew*
 JW 3SG.PFV=hang.TR flower side-CONST A
 ‘Chief Wili hung a flower-necklace around Andrew(’s neck).’

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- (127) **ni=lse* *ze=* *dahe-q*
 1SG.EXC.PFV=see.TR ART mother-1SG.EXCL.POSS
 *Intended: ‘I saw some my mother.’

The subgroups of proper nouns, kinship terms and personal names, are discussed below.

2.5.1.1.1 Kinship Terms (Free and Bound)

Kinship terms not only denote a specific entity, but also denote a class of familial or social relationships between two or more entities. Kinship terms are either bound forms (which take an obligatory suffix) and participate in direct-possession genitive constructions, or free forms which participate in indirect-possession genitive constructions. In genitive constructions, free forms always occur with the general classifier *no-* with one exception: ‘aunt’. This is presumably due to the role of aunts in marital arrangements (Vari-Bogiri 2007). The first table below (Table 2.11) shows bound kinship terms, and below that (Table 2.12), free kinship terms.

Table 2.11 Bound Kinship Terms

Form	Gloss	Contextual Information
<i>zmia</i>	‘father’ (and paternal uncles)	Kinship system means all the brothers of speaker/ego’s actual father are also referred to as ‘father’ <i>zmia</i> . Also adoptive father is referred to with this term.
<i>dahe</i>	‘mother’ (and maternal aunts)	All the sisters of ego’s actual mother are referred to as ‘mother’ <i>dahe</i> . Also adoptive mother is referred to with this term.
<i>zaha</i>	‘husband’	
<i>dado</i>	‘wife’	
<i>seze</i>	‘sister/brother/male or female friend’	<i>seze</i> and <i>mware</i> can be used for any man or woman regardless of age, they are used respectfully making use of the person’s name

	(opposite gender to speaker)	<p>unnecessary. They denote same/different sex relationships which is dependent on the sex of the speaker/ego and denotee, such that a female ego would use <i>mware</i> for a sister/female friend and would use <i>seze</i> for a brother/male friend. However a male ego would use the opposite: <i>mware</i> for a brother/male friend and <i>seze</i> for a sister/female friend.</p> <p>Rather than referring to a blood sister or brother, this is a familiar term used to someone of a similar age.</p>
<i>mware</i>	<p>‘sister/brother/male or female friend’</p> <p>(same gender as speaker)</p>	See above
<i>wrie</i>	‘sister’	This term is used for blood sister.
-	‘brother’	No equivalent for blood sister found to mean blood brother.
<i>zbi</i>	‘grandparent’	No difference for gender.
<i>dzo</i>	‘child’	No difference for gender.
<i>mébé</i>	‘grandchild’	No difference for gender.
<i>meza</i>	‘uncle’ (maternal uncles)	Ego refers to all mother’s brothers with this term.
<i>zjala</i>	‘nephew/niece’	All mother’s brothers use this to ego.
<i>zahla</i>	‘in-laws’	Used by in-laws to refer to each other in all but one direction: son/daughter in law to parents-in-law and parents-in-law to son-in-law (but not by father-in-law to daughter-in-

		law, see below).
<i>blie</i>	‘daughter-in-law’	Used by father to daughter-in-law (see father relationship above). This is interesting as it is homophonous with the classifier for a valued item/duty of care <i>blie</i> -, presumably due to the bride price custom where fathers pay in pigs or money to secure a wife for their son.

Table 2.12 Free Kinship Terms

Form	Gloss	Classifier used	Contextual information
<i>wwa</i>	‘aunt’	<i>blie</i> ‘valuable’	Cognate <i>wawa</i> in Apma, also takes valuable classifier
<i>ttu/tutu</i>	‘grandparent’	<i>no</i> ‘general’	
<i>pipi</i>	‘grandparent’	<i>no</i> ‘general’	A loanword from Bislama
<i>tta/tata</i>	‘parent’	<i>no</i> ‘general’	

Between certain family members there are respect relations, which require a respect pronoun when that person is the addressee. The use of dual and plural subject markers on the verb denote respect when the addressee is singular in number. For example the subject marker *bi*= ‘3PL.IPFV’ attached to the verb would be used when addressing a brother or uncle, rather than the second person singular subject marker.

2.5.1.1.2 Personal Nouns

Personal names in the Ske area take the form of first names and family names. First names are both borrowings from other languages: typically French or English and are often biblical names. Traditional ‘kastom’ or custom names are also given. Everyone is given one of each type of name in the following order:

First name + Family name + Kastom name

For example, the full name of one of my consultants was: Cain (First name) Tabi (Family name) Lingkon (Kastom Name). Names from each group are looked at in turn below.

Table 2.13 Family Names

	Lineage 1	Lineage 2
Male	<i>Tabi</i> [ta ^m bi], pronounced without pre-nasalisation in Apma [tabi]	<i>Bule</i>
Female	<i>Mabon</i>	<i>Matan</i>

There are two lineages of family names in Ske and within these lineages there are male family names and female family names. Traditionally, people are not allowed to marry someone with a surname which comes from the same lineage, i.e. a Mabon should not marry a Tabi, however this is changing as more exogenous marriages to a person from another Pentecost society or further afield take place. Women and men retain the family name they were born with throughout their lives. Ske society is patriarchal¹⁵ and the family names are thus passed down following the father's line, such that the daughter of a Tabi man will be a Mabon and the son, a Tabi.

First names come from a variety of sources including the bible, or may be recent foreign imports or innovations. People are generally known by their first names, rather than their kastom name, but not in all cases. A specific person can be identified by placing two first names in apposition; that is the name of the person followed by a person they can be associated with, usually a spouse, such that: *Hannah Jack* indicates that the person in question is 'Hannah' who is married to 'Jack'.

¹⁵ Andrew Gray commented that Raga and Apma society are matriarchal. When there has been intermarriage between someone from the Ske society with Raga or Apma societies it has thus caused some interesting land disputes.

Table 2.14 First Names (Christian Name)

Male	Female
<i>Jonas</i>	<i>Minnie</i>
<i>Jack</i>	<i>Patricia</i>
<i>Moses</i>	<i>Ruth</i>
<i>Giovanni</i>	<i>Susika (Susi + Ka(ren))</i>
<i>Teddy</i>	

Table 2.15 Traditional (Kastom) Names

Male	Female
<i>Kuran</i>	<i>Malingse</i>
<i>Lingkon</i>	<i>Suae</i>
<i>Tabinok</i>	

2.5.1.2 Common nouns

Common nouns differ from proper nouns in several ways. Common nouns:

- can be determined by the article *ze=*;
- can be modified by adjectival forms *alok* ‘big’ and *tés* ‘small/little’;
- can occur in locative and temporal adjuncts where they must be marked by a preposition;
- can occur in adjuncts where they are marked by prepositions for roles such as beneficiary, recipient, accompaniment and purposive as well as instrumental;
- cannot be used as vocatives.

Common nouns which denote locations differ from local nouns with locational semantics for the following further reasons:

- when they occur in a locative adjunct, they must be marked by a preposition;
- when functioning as the object of *tnie* ‘from’ or ‘ABL’ they need not be preceded by *ót* ‘place’.

In (128) a common noun, *ren* ‘day’ is determined by the article *ze=* and also functions as the object of a preposition in a temporal adjunct.

- (128) *tve=ba* *la=lse* *ót* *na-n* *en*
 1PL.INCL.FUT=go ES=see.TR place ASSOC-CONST there
lo-n *ze=ren*
 on-CONST ART=day
 ‘We will go and see that place one day.’ (pt-prayerbook-1)

The example in (129) shows a common noun ‘door’ in a locative adjunct marked by the preposition *va-* ‘under’.

- (129) *m=ba* *me* *ót* *ne* *im* *mwa-n*
 3SG.IPFV=go come place REL house CL.DR-3SG.POSS
Bwat, *la=pet* *va-n*¹⁶ *mzav*
 B, ES=stand under-CONST door
 ‘He comes to the house of the Bwat and stands in the doorway’
 (2008-10-31-00026au-ec)

In (130) a common noun is marked by the preposition *ne* for the role of Instrument.

- (130) *Jonatan* *a=zale* *bwaudia* *ne* *tlé*
 J 3SG.PFV=cut.TR tree INSTR axe
 ‘Jonathan cut the tree with an axe’ (2008-11-12-00071au-ec)

In (131) the ablative preposition *tnie* which codes motion away from a Source is the head of the PP. The common noun *bletpav* ‘table’ can function as the prepositional object of *tnie* as can *ót* ‘place’. Local nouns cannot function as prepositional objects (132) and would have to appear in a construction with *ót* instead (133) (and see section 2.5.2 on local nouns).

¹⁶ This could be a mis-hearing and be

vwa *-n* *mzav*
 lid/opening -CONST door
 ‘At the opening (place) of the door.’

based on the Apma translation (p.c Andrew Gray). Either way, the common noun must be marked as a preposition as both *va* ‘under’ and *vwa* are classed as noun-like Class I prepositions (relational nouns).

- (131) [PP [NP [PP [NP]]]
pus a=va zvan tnie (ót ra-n) bletpav
 cat 3SG.PFV=go under ABL place on-CONST table
 ‘The cat has gone down from the top of the table.’ (cw-b9-197)

- (132) **azo=dae mwe=wrut tnie Ranror*
 man=DIST 3SG.IPFV=walk ABL R

- (133) *azo=dae mwe=wrut tnie ót Ranror*
 man=DIST 3SG.IPFV=walk ABL place R
 ‘The man is walking from Ranor.’

Common nouns can be both free and bound. Both types are discussed in the following sections.

2.5.1.2.1 Free Common Nouns

Most nouns fit into this category: they may denote temporal concepts or locations, animate and non-animate entities, and include loanwords from languages such as Bislama, French or English.

Table 2.16 Some examples of Free Common Nouns

<i>Term</i>	Gloss	<i>Term</i>	Gloss
<i>ah</i>	‘black ant’	<i>on</i>	‘sand’
<i>ab</i>	‘fire/firewood’	<i>óza</i>	‘bush/leaf medicine’
<i>avzak</i>	‘that thing’	<i>pasta</i>	‘pastor’
<i>bwó</i>	‘pig’	<i>ren</i>	‘day’
<i>brasok</i>	‘snake.generic’	<i>ri</i>	‘river/water’
<i>bwet</i>	‘taro’	<i>rub</i>	‘walking stick’
<i>bzavuk</i>	‘papaya’	<i>ser</i>	‘fire lantern/torch’

<i>dieb</i>	‘bush area between village and middle bush’	<i>sser</i>	‘red mat’
<i>dam</i>	‘yam/year’	<i>skor</i>	‘sago palm thatch’
<i>dol</i>	‘word/language’	<i>skul</i>	‘school’
<i>ih</i>	‘banana’	<i>smór</i>	‘freshwater prawn’
<i>im</i>	‘house’	<i>tobang</i>	‘basket’
<i>kras</i>	‘chief level’	<i>toj</i>	‘torch’
<i>loq</i>	‘laplap’	<i>ut</i>	‘louse’
<i>mlao</i>	‘incubator bird’	<i>vuk</i>	‘ghost/whiteman’
<i>mliok</i>	‘kava’	<i>vwómwól</i>	‘orange’
<i>mwir</i>	‘left’	<i>waq</i>	‘ship/canoe’
<i>mzó</i>	‘right’	<i>zial</i>	‘sun/hour’
<i>ngiek</i>	‘flower’	<i>ziamat</i>	‘woman’
<i>óh</i>	‘rain’	<i>zivvak</i>	‘thing’ (unspecific)
<i>ól</i>	‘coconut’	<i>zmat</i>	‘spirit/devil’

It was mentioned in (2.4.1) that Ske has a relatively large number of possessive classifiers which combine with free common nouns to code possessive relationships. One of the Ske classifiers, the fire-classifier, is not found in Apma but is found in some Central Vanuatu languages. Entities which are marked by this classifier are the traditional ‘torch’ *ser* (husk material from a coconut), firewood (134) and smoke from a fire, which is also the term used for ‘cigarette’ *sonbienab*, but also loanwords for newer technologies including matches and torches (135).

- (134) *bie-q* *ól/ ab*
 CL.FIRE-1SG.EXCL.POSS coconut/fire
 ‘my coconut/fire(wood)’
- (135) *bie-m* *majis* *m=du?*
 CL.FIRE-3SG.POSS matches 3SG.IPFV=exist
 ‘Do you have any matches?’

A more unusual classifier is *die* which is used with hard-shelled nuts or fruits which need some effort to be opened in order to remove the fruit and be eaten. This includes coconut *ól* (or the ‘fruit’ of the coconut *vwie-n ól*); *valnga*, *vwekngie* and *zvwo* are all types of hard-shelled nut with flesh inside which grow in the area.

- (136) *die-q* *ól*
 CL.EDHS-1SG.EXCL.POSS coconut
 ‘My coconut (for eating).’ (jt-b9-254)

Notably, *im* ‘house’ occurs in an indirect possession construction with the classifier *mw*- ‘drinkable’.

Unlike proper nouns and derived nouns, common nouns show some variation in the types of possessive constructions and classifiers they occur with in indirect possession constructions. So ‘my coconut’ for drinking will occur with the drinkable classifier, but ‘my coconut’ for eating will occur with the edible classifier (136) and ‘my coconut for making fire’ will occur with the fire classifier (134). In (137) and (138) below, ‘taro’ *bwet* occur with the classifiers which mark the the noun as ‘valued’ and ‘edible’. Nouns appear to be able to occur freely in possessive constructions with different classifiers: classifiers in Ske do not indicate that a noun belongs to a certain semantic class, rather they morphologically encodes the nature of the semantic relationship between possessed noun and possessor at the time of speaking¹⁷.

¹⁷ For more on this subject, see Franjeh (2013) on semantic classification and possession in North Ambrym.

- (137) *blie-n* *bwet*
 CL.VAL-3SG.POSS taro
 ‘his taro’ (when in the field)

- (138) *a-n* *bwet*
 CL.ED-3SG.POSS taro
 ‘his taro’ (ready to eat)

2.5.1.2.2 Bound Common Nouns

Nouns which fit into this category largely come from the domain of body parts as well as nouns denoting part-whole relationships, locations, positions and dimensions and intimate personal property. Bound nouns must occur with a possessive pronoun suffix or the general nominalising suffix *-qze* (indicating a generic term). The citation form of body parts always occurs with a third person singular possessive pronoun suffix.

Table 2.17 Some examples of Bound Common Nouns

<i>Term</i>	<i>Gloss</i>	<i>Term</i>	<i>Gloss</i>
<i>bwa</i>	‘head/tree’	<i>sie</i>	‘side/edge’
<i>bla</i>	‘skin’	<i>sihnie</i>	‘nest’
<i>dlo</i>	‘word/language’	<i>sre</i>	‘fire lantern/torch’
<i>gro</i>	‘wall/fence’	<i>vale</i>	‘house’
<i>lalsa</i>	‘(young) garden’	<i>valiamza</i>	‘eye of coconut’
<i>marsa</i>	‘part.of’	<i>vanbe</i>	‘chest’
<i>minsia</i>	‘space/gap’	<i>vanblansihlie</i>	‘slippers’
<i>mwarvvo</i>	‘power/strength’	<i>vandonbwa</i>	‘back of head’
<i>mza</i>	‘tip’	<i>waló</i>	‘behind/back of’

<i>ngia</i>	‘hand/wing’	<i>watno</i>	‘place of something’
<i>ro</i>	‘leaf’	<i>zabwie</i>	‘stomach’
<i>sia</i>	‘name’		

As can be seen from the tables above, a number of nouns with similar meanings belong to different classes. Some concepts including ‘canoe’ (139) and (140) and ‘house’ (141) and (142) can be expressed using two nouns, one of which is possessed, the other is not:

(139)	Free	(140)	Bound
<i>no-n/blie-n</i>	<i>waq</i>	<i>oqa-q</i>	
CL.GEN/CL.VAL-3SG.POSS	ship/canoe	canoe-1SG.EXCL.POSS	
‘my ship/canoe’		‘my canoe’	
(141)	Free	(142)	Bound
<i>mwa-q</i>	<i>im</i>	<i>vale-q</i>	
CL.ED-1SG.EXCL.POSS	house	house-1SG.EXCL.POSS	
‘my house’		‘my house’	

The terms for ‘house’ *im/vale* denote different kinds of house: *vale* describes the house in someone’s garden, on traditional land, lived on for generations. The term also refers to other types of buildings such as schools and churches: it has a semantically larger scope. By comparison, *im* describes the houses which have been built in recent times, for example in Bwaravet which is more recently settled on. *Oqa* usually refers to a traditional wooden canoe and *waq* is applied to cruise ships and cargo boats, however there is an example in the corpus of *oqa* being used to describe a warship.

Also compare the bound form meaning ‘hair’ which is attached to its owner’s head (143) with ‘hair’ on the floor (144) which is a free form. Once the hair is disassociated from the body the possessive relationship changes to become less inherent.

- (143) **Bound**
- | | | | | |
|-----------------|--------------------|--------------|---------------|--------------|
| <i>ti=bwoze</i> | <i>li-m</i> | <i>nanae</i> | <i>la=pri</i> | <i>pamli</i> |
| 2SG.FUT=tie.TR | hair-2SG.POSS | then | ES= turn.TR | again.TR |
| <i>nanae</i> | <i>la=ga</i> | <i>bwo</i> | <i>tat=ne</i> | |
| then | ES=ASP | tie | tight=TR | |
- ‘You tie your hair and then you turn it again and then you tie it tight.’
(mm-b6-57)

- (144) **Free**
- | | |
|--------------------|------------------------|
| <i>ti=kavko</i> | <i>weil=nam</i> |
| 2SG.FUT=collect.TR | hair=PROX.ADDR |
- ‘Pick up that hair (close to you).’ (mm-b6-58)

However, sometimes the same base can be both free and bound. The phonological difference between the free and bound forms reflect predictable phonotactic rules discussed in (2.1.3.1). In (145) and (146) ‘lantern’ is both free and bound, in (147) and (148) ‘umbrella’ (or type of leaf) has free and bound forms as does ‘word/language’ in (149) and (150).

- | | | | |
|-----------------------|-------------------|-----------------------|--------------|
| (145) | Free | (146) | Bound |
| <i>bie-q</i> | <i>ser</i> | <i>sre-q</i> | |
| CL.FIRE-1SG.EXCL.POSS | lantern | lantern-1SG.EXCL.POSS | |
| ‘my lantern/torch’ | | ‘my lantern’ | |
-
- | | | | |
|----------------------|------------------------|------------------------|--------------|
| (147) | Free | (148) | Bound |
| <i>no-q</i> | <i>sungsung</i> | <i>sngu-q</i> | |
| CL.GEN-1SG.EXCL.POSS | umbrella | umbrella-1SG.EXCL.POSS | |
| ‘my umbrella’ | | ‘my umbrella’ | |
-
- | | | | | |
|----------------------|-------------|-------------------|-----------|------------|
| (149) | Free | | | |
| <i>mwa=tov~tov</i> | <i>ra-n</i> | <i>dol</i> | <i>ne</i> | <i>Ske</i> |
| 1SG.IPFV=REDUP~talk | on-CONST | language | REL | S |
| ‘I am speaking Ske.’ | | | | |

- (150) **Bound**
mwe=hru dlo-mwam
 3SG.IPFV=learn.TR language-1PL.EXCL.POSS
 ‘She/he is learning our language.’

Possessive suffixes are sometimes dropped from bound forms in constructions in which they regularly occur to form a compound as shown in (151) and (152).

- | | | | |
|-------|-----------------------|-------|------------------------|
| (151) | Suffix dropped | (152) | Suffix present |
| | <i>mwavie-Ø ri</i> | | <i>mwavie-n blepav</i> |
| | edge-Ø water/river | | edge-3SG.POSS table |
| | ‘river-mouth’ | | ‘edge of table’ |

New compounds can also be formed when the suffix is dropped with a shift in meaning as in (153) and (154).

- (153) *bwó blie-n Jonas*
 pig CL.VAL-CONST J
 ‘Jonas’s pig’
- (154) *bwó blie- Ø vwuk*
 pig CL.VAL- Ø white.man/ghost
 ‘dog’ (whiteman’s pig)

Semantic subclasses of bound nouns denote entities and concepts including body-part terms, part-whole relationships and dimensions or facets of an entity. Members of the last group are termed relational nouns and a subgroup of these also has prepositional functions. These are described in the section on prepositions in 2.7 as Class I prepositions.

2.5.1.3 Derived Nouns

Derived nouns are differentiated from other general nouns on the basis that derivational morphology has been applied to a verb or other noun in order to create a new noun. However there are other differences between derived nouns and other

members of the general noun group that distinguish them as a separate class. Derived nouns:

- can be determined by the article *ze=* (like common nouns, but unlike proper nouns);
- cannot appear in direct possession constructions (unlike common and proper nouns);
- can appear in indirect possession constructions and in the associative construction, like common nouns but the semantics expressed can be quite different;
- cannot function as an agentive subject of a verbal predicate;
- are marked by a preposition in a locative adjunct when they have locative semantics (like common nouns with locative semantics).

In (155) the derived noun *lématan* ‘dream’ is determined by the article *ze=*:

- (155) *ni=lse* *ze=* *lémat-an*
 1SG.EXCL.FUT=see.TR ART dream-NMLZ
 ‘I had a dream.’ (jt-b9-77)

In (156) the derived noun ‘rest’ *méban* is the head of an indirect possessive construction with the general classifier *no-*:

- (156) *zmia-d* *m=du* *savi* *id* *lal*
 father-1PL.INCL.POSS 3SG.IPFV=exist wait 1PL.INCL.IND at
bni *la=um=ne* *watno-n* ***no-d***
 cloud ES=do=TR place-CONST CL.GEN-1PL.INCL.POSS
méb-an *en*
 rest-NMLZ there
 ‘Our father is waiting for us in heaven and preparing our resting place there.’ (pt-prayerbook-1)

When a derived noun which denotes an action appears in the associative construction following the associative construct *na-* (in the possessor slot) with a noun denoting a

human entity preceding the construction (in the possessum slot, the meaning is that the derived noun is a trait, job or characteristic strongly associated with the person (157).

- (157) *Andrew m=bé azó na-n wrut-an*
 A 3SG.IPFV=COP man ASSOC-CONST walk-NMLZ
 ‘Andrew is a walking-man/loves walking/walks everywhere.’

In (158) the derived noun ‘dance.n’ is marked by the preposition *lo* for location:

- (158) *azó nier be=ba lo-n vel-an*
 man PL 3PL.IPFV=go in-CONST dance-NMLZ
 ‘Everyone is going to the dance.’ (rt-b1-91)

Derived nouns do not function as the agentive subject of a verbal predicate as they do not form agentive nouns (159), however they can function as the subject which has the role of theme when the predicate is a stative/adjectival verb (160).

- (159) **sa~sahrak-an a=va lo-n skol*
 REDUP~show.INTR-NMLZ 3SG.PFV=go in-CONST school
 *?‘teaching went to school’

- (160) *tov~tov-an a=mrav tés*
 REDUP~talk.INTR-NMLZ 3SG.PFV=be.long little
 ‘quite a long talk’

Derived nouns can function as modifiers of other nouns to form an NP. In (161) the nominalised form of the intransitive verb *bal* ‘fight’ modifies ‘canoe/boat’ *oqa* and functions as the subject of the predicate.

- (161) *ót la zeh ae [oqa-n bal-an]*
 place at sea CONJ ship-CONST fight.INTR-NMLZ
a=tliek
 3SG.PFV=wander/drift
 ‘And on the sea, a warship drifted about.’ (ec-tr2-5)

There are a number of derivational devices which create nouns from verbs in Ske and the derived nouns may denote either the activity represented by the verb or may represent an argument of the verb or a non-core role.

-an nominalises an intransitive verb to represent an activity/state;

a= fossilised subject marker forms a compound with an intransitive (reduplicated) verb and derives an instrument or the subject with the role of theme;

na(-n) the associative construct forms a compound with verbs and other nominals to give a genitive nominal form, or ‘passive’ possessed form¹⁸;

-an nominalises a transitive verb with a causer/agentive subject deriving a form with resultative semantics.

Action/State nouns are derived by suffixing *-an* to an intransitive verb form. Intransitive verbs may be derived from a transitive form; suppletively related to a transitive counterpart or inherently intransitive (see 2.6.6).

Table 2.18 Nouns Derived by *-an* Suffixation

Verb	Gloss	Nominalised form	Gloss (derived noun)
<i>an</i>	eat.INTR	<i>an-an</i>	‘eating’ c.f. <i>anian</i> ‘food’
<i>lek</i>	marry.INTR	<i>lek-an</i>	‘marriage’
<i>meb</i>	rest.INTR	<i>méb-an</i>	‘rest’
<i>mwur</i>	grow/live.INTR	<i>mwur-an</i>	‘life/growth’
<i>saosao</i>	sing.INTR	<i>saosao-an</i>	‘song’

¹⁸ When both the possessor and the possessum slot are overt on each side of the associative construction, the form constitutes a separate word. However, when the possessor slot is not overt, indicated only by the possessive suffix, stress patterns indicate that the associative construct is more closely associated with the possessed noun and forms a compound.

<i>sasahrak</i>	teach.INTR	<i>sasahrak-an</i>	‘teaching’
<i>tangró</i>	pray.INTR	<i>tangró-an</i>	‘prayer’
<i>tvótvók</i>	create.INTR	<i>tvótvók-an</i>	‘creation’
<i>uh</i>	ask.INTR	<i>uh-an</i>	‘question’
<i>um</i>	work.INTR	<i>umw-an</i> ¹⁹	‘work’
<i>vel</i>	dance.INTR	<i>vel-an</i>	‘dance’

When a verb which undergoes consonant-initial mutation (2.6.2) is nominalised, the primary form is the form which is suffixed by *-an* to derive the noun:

Table 2.19 Nouns Derived by *-an* Suffixation which have undergone Verb-initial Consonant Mutation

Secondary form	Primary form	Derived noun
<i>dorngi</i> ‘want’	<i>zorngi</i>	<i>zorngi-an</i> ‘desire’
<i>ba</i> ‘go’	<i>va</i>	<i>va-an</i> ‘going/trip’

The stative/adjectival verbs can be nominalised to form state nouns: the article *ze=* cliticises on to the verb suffixed by *-an*:

ze=abis-an → *zabisan* ‘goodness’

ze=bwóv-an → *zabwóvan* ‘badness/evil’

There are a few instances in the corpus of de-verbal instrumental nominalization (Comrie & Thompson 2007: 338) where a noun is created which denotes an entity that can be used as an instrument for conducting the event described by the verb: for example, a brush or a fan (162). The same process has derived a generalised entity which conducts the event described by the verb; in (163) a ‘floating thing’:

¹⁹ See 2.1. Word-final labio-velar consonants are not realised as labio-velars, however when suffixed with the nominalising suffix *-an*, the labio-velar is realised

(162) *leng* *a=riv~riv* → *arivriv* ‘fan’
 wind 3SG.PFV=REDUP~blow.INTR
 ‘The wind blew.’ (pt-b6-52)

(163) *waq* *a=sal~sal* → *asalsal* ‘floating thing’
 ship 3SG.PFV=REDUP~float.INTR
 ‘The ship floated.’ (pt-b16-61)

The associative construct *na-* combines with verbs and nouns to form a compound which is a noun denoting ‘passive or characteristic possession’ (Palmer 2005; Lynch 2001). A similar process is found in Apma (Schneider 2011).

Objective nominalisation is one result of this process: the derived noun was the overt object-patient of the verb in a transitive construction. In genitive constructions, the associative construction denotes a kind of possessive relationship and the derived nouns here take a possessive suffix which indicates the possessor. This construction is particularly common with verbs describing some kind of injury or harm being done to the person, as shown in (164) and (165):

(164) *a=wsé* *nó*
 3SG.PFV=hit.TR 1SG.EXC.IND
 ‘He hit me.’ (pt-b9-37)

(165) *wséna-q* *ae* *a=bwón*
 hit.TR.ASSOC-1SG.EXCL.POSS CONJ 3SG.PFV=be.bad
 ‘My wound (where I was hit) is bad.’

The derived noun may be the implied object of an intransitive verb: in (166) the traditional red mat of custom ceremonies in Central Pentecost is derived from the verb with the meaning of ‘dress in a red mat’ (167); a red mat is the implied object of the verb.

(166) *be=vwamal*
 3PL.IPFV=wear.red.mat
 ‘They are dressed in red mats.’

- (167) *mwa=kró* *vamwalna-q*
 1SG.IPFV=wear/block my.red.mat
 ‘I am wearing my red mat.’

Nominals derived as a result of combining with the *na-* associative construction in comparison to nouns derived by *-an* suffixation refer to a specific entity: for example, *vamwulnan* ‘answer’ (to a specific question) compared to ‘reply’ *vamwulan* and *mwurnan* ‘growth’ (of a specified plant) compared to *mwuran* ‘life’ (in general) as shown in (168) and (169) below. Further research is required here.

- (168) *vér* *ne* *a=zu* *povohe* *vale-n* *genereta*
 cabbage REL 3SG.PFV=exist near house-CONST generator
ae ***mwurna-n*** *karze* *mwe=bis*
 and live/grow.ASSOC-3SG.POSS no.longer 3SG.IPFV=be.good
logane *son* *bie-n* *jenereta* *m=ba*
 because smoke CL.FIRE-CONST generator 3SG.IPFV=go
ra-n *ae* *mwe=kkior*
 on-3SG.POSS CONJ 3SG.IPFV=be.dry

‘The cabbage which was near the generator, its growth is no longer good (it is no longer growing well) because smoke from the generator goes on it and it becomes dry.’ (jt-b16-45)

- (169) *be=lngi~lngi* *zu-an* *a=bvóv* *ba*
 3PL.IPFV=REDUP~leave.TR exist-NMLZ 3SG.PFV=be.bad go
zek *lalvie-n* ***mwur-an*** *ne* *m=du*
 behind PURP-CONST live-NMLZ REL 3SG.PFV=exist
lal *bni*
 at heaven/cloud
 ‘They leave their bad ways behind for a life in heaven.’
 (pt-prayerbook-c2)

A further process, which is complex and can only be mentioned here in brief, derives a nominal form with resultative semantics. The suffix *-an* attaches to a transitive verb, in most cases, whose subject typically has the semantic role of causer or alternatively of experiencer: the person who hears or waits for something. The derived form shows

characteristics of verbs in that it is preceded by the subject marker, however, there are restrictions on the number and person which the subject marker can specify and infact its valence is not altered. The derived form can also function as the object of a predicate (170) and for this reason is described here under derived nominals. A similar process is described on Si-Luyana (Comrie & Thompson 2007: 341). This process is also found in Apma (Schneider 2010) who analyses it as a process of passive-form derivation.

- (170) *bwet ne a=range-an ae mwa=dorngi*
 taro REL 3SG.PFV=cook.TR-NMLZ CONJ 1SG.EXCL.IPFV=want.TR
 ‘The cooked taro, I want it.’

2.5.2 Local Nouns

A ‘local noun’ is the term given to a group of nouns which refer to temporal entities and locational entities including placenames (Ross 2003). In Ske, local nouns form a semantic class but also differ from general nouns in their distribution. There are two sub-groups of local nouns: locational and temporal, their differences will be discussed further below. Firstly, local nouns are identified as nouns and the differences between local nouns and general nouns is discussed.

Local nouns are classed as nouns since local nouns, like all nouns, can:

- be modified by a demonstrative;
- occur in adjuncts;
- occur in a fronted topic position before the VP;
- function as subjects of verbal predicates, although there are restrictions on the type of predicate when a local noun is the subject;
- Function as the object of a preposition (with restrictions on which prepositions).

Local nouns differ from general nouns for the following reasons:

- they cannot function as core arguments of a verbal predicate other than for the set of locative verbs (positional, postural and existential) and the copula verb *bé* (although not all local nouns can function as core arguments);
- they cannot function as the head noun of an NP modified by a relative clause;
- they cannot be modified by an adjectival verb or noun denoting property concepts;
- in adjuncts which are PPs, local nouns can only function as objects of the prepositions *ne* when marking for the role of Goal or *ze* marking Source or ‘origin/denizen of’, i.e. they do not function as objects of prepositions in adjuncts which express location, locational phrases containing a local noun are NPs;
- there are restrictions on the types of possessive phrases local nouns can occur in (they can either *not* occur in possessive constructions, occur only with the associative construction, or be directly possessed i.e. they cannot be heads of possessive phrases where they are modified by a classifier);
- they select the interrogative *ebe* ‘where?’ or *nangeh* ‘when?’, as do general nouns when asking for locations or times, but, unlike general nouns, local nouns only select these interrogative expressions and no other. This is a semantic restriction.

Some local nouns can function as subjects of locative (positional, postural and existential) verbs. There are differences within the subgroup and this function will be discussed further below. An example of a local noun, the placename *Melsisi*, functioning as the subject of the existential verb *du*, is given in (171).

- (171) **S (Local N) V**
- | | | |
|----------------|----------------|-------------|
| <i>Melsisi</i> | <i>m=du</i> | <i>ebe?</i> |
| M | 3SG.IPFV=exist | where? |
- Where is Melsisi?

In (172) a local noun *Fiji* ‘Fiji’ is the subject of a positional verb *we* ‘lie’. The example below also shows how another local noun *lik* ‘east.coast’ (of Pentecost) does not function as the object of a preposition, such as *pasira* ‘other side’: instead *ót*

‘place’ is the prepositional object and the local noun appears in apposition with it and has a modifying function:

- (172) *Fiji* *m=we* *pasira-n* *ót* *lik*
 F 3SG.IPFV=lie other.side-3SG.POSS place east.coast
 ‘Fiji is on the other side/beyond the east coast (of Pentecost).’ (jt-b8-25)

In (173) a local noun *batniaq* ‘downhill’ is the the head of the first adjunct and is modified by the distal demonstrative. The example shows two co-ordinated adjuncts appearing in a series; the order they appear in here is reversible. Both adjuncts are locative phrases. The first is an NP and the second, featuring a general noun *im* ‘house’ is a PP.

- | | | | | |
|-------|----------------|-------------|-----------------------------|------------------|
| (173) | | | Adjunct | Adjunct |
| | <i>m=du</i> | <i>ebe?</i> | <i>[batniaq=dae],</i> | <i>[lal im!]</i> |
| | 3SG.IPFV=exist | where | downhill=DIST | at house |
| | ‘Where is he?’ | | ‘Down there, in the house!’ | |

In (174) a local (temporal) noun occurs before the main clause, in focus position:

- (174) *[mwaqrek=ned]* *ae* *Kay* *a=mé* *la=me*
 today=PROX1 CONJ K 3SG.PFV=come ES=come
lse *nó*
 see.TR 1SG.EXCL.IND
 ‘Today, Kay came to see me.’ (ec-tr1-3)

Local nouns cannot be modified by any forms denoting property-concepts. In (175) *rovre* ‘village/settlement’ cannot be modified by the adjectival verbs *alok* or *watik* whereas the general noun *vnó* can (176).

- | | | |
|-------|--------------------|-------------------|
| (175) | Local N | AdjV |
| | <i>*rovre</i> | <i>alok/wakik</i> |
| | settlement/village | big/small |

(176) **General N AdjV**

vnó alok/wakik
village big/small
‘big/small village’

In (177) the local noun cannot be modified by the nominal form *temtónan* ‘huge’ whereas a general noun *bwó* ‘pig’ can (178).

(177) **AdjN Local N**

**temtónan rovre*
huge.one village
‘huge village’

(178) **AdjN General N**

temtónan bwó
huge.one pig
‘huge pig’

Local nouns do not function as prepositional objects except for *ze* ‘SOURCE’ or ‘denizen.of’ and *ne* when marking for the role of Goal (but not Instrument). In NP adjuncts with locative or temporal meaning, a local noun is an unmarked head. In (179) a local (temporal) noun *ringbwóng* ‘tomorrow’ is the head of an adjunct with temporal meaning.

(179) **Local N**

de=me ringbwóng
3SG.FUT=come tomorrow
‘He will come tomorrow.’

However, adjuncts in which general nouns occur are always PPs: in (180) a general noun *vwól* ‘month/moon’ with temporal meaning is marked by a preposition *lia-* ‘side’ in a PP adjunct. Other general nouns with temporal meanings include *ren* ‘day’, *dam* ‘year/yam’ and *vsia* ‘year’.

(180)		Prep	General N		
	<i>de=me</i>	<i>lia-n</i>	<i>vwól</i>	<i>ne</i>	<i>Julae</i>
	3SG.FUT=come	side-CONST	month	REL	July
	‘He will come/is coming in July (in the month of July).’				

The examples above were of local temporal nouns, the other major subgroup of local nouns, locational nouns, exhibits identical distribution. In (181) a local noun denoting the location *lik* ‘east coast’ (of Pentecost) is the head of a locative phrase where it is not marked by a preposition.

(181)				Local N
	<i>vnó</i>	<i>nier</i>	<i>be=du</i>	<i>lik</i>
	village	PL	3PL.IPFV=exist	east.coast
	‘There are villages on the east coast (of Pentecost).’ (nm-b15-28)			

In (182) the general noun *zehmiat* ‘big.sea’, which also describes the east coast area of Pentecost where the sea is rougher than on the west coast, is marked by a preposition for a locative role.

(182)			Prep	General N
	<i>vnó</i>	<i>avut</i>	<i>m=du</i>	<i>ra-n</i>
	<i>zehmiat</i>			
	village	many	3SG.IPFV=exist	on-CONST
	big.sea			
	‘There are many villages on the bigsea-side.’ (it-b19-28)			

Local nouns do not occur in PPs where the noun is marked for Benefactive, Accompaniment or Instrumental roles. They do occur in PPs marking the noun for Source with *ze* and Goal with *ne*, which is generally where the predicate is a motion verb. Elsewhere, such as with purposive adverbial phrases headed by *lalvie* ‘PURP’, and in adjuncts which are location expressions, local nouns cannot function as prepositional objects. When they occur in oblique phrases, the general noun *ót* ‘place’ is marked by the preposition and the local noun occurs in apposition with *ót*, as shown below. See also examples (131-133) and (172).

In (183) the preposition *tnie* marks *ót*, and the local noun, a placename *Vanór*, modifies *ót*.

- (183)
- | | | | | |
|--------------|--------------------|-------------|---------------|----------------|
| | | [PP | [NP] | [NP]] |
| <i>Jonas</i> | <i>a=mlio</i> | <i>tnie</i> | <i>ót</i> | <i>Vanór</i> |
| J | 3SG.IPFV=exit.INTR | ABL | place | V |
- ‘Jonas left Vanor.’

The local noun cannot be marked by the preposition alone (184).

- (184)
- | | | | |
|---------------|---------------|-------------|--------------|
| | | [PP | [NP]] |
| <i>*Jonas</i> | <i>a=mlio</i> | <i>tnie</i> | <i>Vanór</i> |
| J. | 3SG.PFV=exit | ABL | V. |
- *Intended: ‘Jonas left Vanor.’

Compare with the examples in (131), repeated here as (185) for convenience, a general noun *bletpav* ‘table’ can function as the object of a preposition in a simple PP or in an embedded NP where *ót* is the head (the NP *ót ran bletpav* is optional).

- (185)
- | | | | | | | |
|------------|-------------|-------------|-------------|------------|--------------|----------------|
| | | | [PP | [NP | [PP] | [NP]]] |
| <i>pus</i> | <i>a=va</i> | <i>zvan</i> | <i>tnie</i> | <i>(ót</i> | <i>ra-n)</i> | <i>bletpav</i> |
| cat | 3SG.PFV=go | under | ABL | place | on-CONST | table |
- ‘The cat has gone down from the top of the table.’ (cw-b9-197)

In (186) a local temporal noun *mwangrek* ‘tomorrow’ cannot function as the object of *ve-* ‘PURP’. Again, *ót* ‘place’ functions as the prepositional object and is modified by *mwaqrek*:

- (186)
- | | | | | |
|-----------------|-----------|--------------|-------------|------------|
| <i>no-d</i> | | <i>um-an</i> | <i>ve-n</i> | <i>ót</i> |
| CL.GEN-2PL.POSS | | work-NMLZ | PURP-CONST | place |
| <i>mwaqrek</i> | <i>ae</i> | <i>avut</i> | <i>ze</i> | <i>ho!</i> |
| today | CONJ | many | COMPL | EXCLM |
- ‘Your work for today, there’s a lot already!’ (cw-b9-24)

The types of possessive constructions in which local nouns can appear will be discussed below as there are differences within the subgroups as to which constructions are possible.

Local nouns can be marked by the preposition *ze* with the meaning ‘denizen of/belonging to’ or ‘Source’. In (187) *ze* marks a local (locational) noun and in (188) *ze* marks a local (temporal) noun *nanó* ‘yesterday’ in an NP.

- (187) *ki= me ze ebe?*
 2SG.PFV=come **SOURCE** where
 ‘Where did you come from?’

- (188) *a-m mleh ze nanó*
 CL.ED-2SG.POSS leftovers **SOURCE** yesterday
 ‘Your leftovers from yesterday.’ (It-b11-99)

Local nouns are divided into two subgroups on the basis of the semantics they express: locational nouns and temporal nouns.

2.5.2.1 Locational Nouns

Locational nouns are split into the following sub-groups: geographic locational nouns and relational locational nouns. Within these sub-groups other minor groups have been established, but this has been done on the basis of semantics, rather than syntax.

Geographic locational nouns refer to fixed locations or identifiable topographical locations: they include placenames (of countries or villages) and landmarks (such as bushland or shore). Essentially, geographic locational nouns denote places that are bounded and unmoveable.

Relational locational nouns denote areas or directions in relation to a potentially moveable anchor and as such code asymmetries: opposite areas or directions on an axis. For example an area behind an entity (using *zek*) moves as the entity moves and it indicates there is an inherent asymmetry: there must be a front (using *mwó*). Included also are non-specific locational nouns which do not identify a specific location, these include the interrogative *ebe* ‘where?’.

Locational nouns are divided into geographic and relational classes because they can be distinguished not only on the basis of their semantics; distributionally there are also differences.

2.5.2.1.1 Geographic Locational Nouns

Geographic locational nouns are distinguished as a syntactic sub-group of locational nouns for these reasons. Unlike relational locational nouns, they cannot:

- they cannot follow a directional verb in a static location expression;
- they cannot occur in the possessum slot of an associative possessive construction (before *na-*);
- occur as the subject of a existential predicate.

In (189) a relational locational noun follows a directional in static location expression. A geographic locational noun (a placename) is ungrammatical in this position (190):

(189) *pasira-n* *srek* ***me*** *itniaq*
 other.side-CONST field come downhillwards
 ‘On this side of the airstrip towards the sea.’

(190) **pasira-n* *srek* ***me*** ***Bwaravet***
 other.side-CONST field come B
 *Intended: ‘On this side of the airstrip towards Bwaravet.’

In (191) a relational locational noun occurs before *na* ‘ASSOC’ in an associative possession construction. In (192) a geographic locational noun is ungrammatical in the same position.

(191) ***bamriaq*** ***na-n*** ***ót*** *ne* *Isaac*
 uphill ASSOC-CONST place REL I
 a=kale *udia* *en*
 3SG.PFV=climb.TR tree there
 ‘Uphill of the place where Isaac climbed the tree.’

(192) ****Ambae*** ***na-n*** ***ót...***
 A ASSOC-CONST place...
 *Intended: ‘On the Ambae side of...’

In (193) *Melsisi*, the placename which is a geographic noun, functions as the subject of the existential predicate *du* ‘exist’. In (194) a locational relational noun is incorrect in this position. It is likely that this position is not possible on the grounds of semantics, rather than, or in addition to, grammaticality. The locational relational nouns do not refer to specific locations but are ever-changing, dependent on the location of the deictic centre or reference point. Possibly for this reason, these relational nouns cannot be ‘located’ and thus cannot function as subjects of locative predicates.

(193) *Melsisi* *m=du* *navwót*
M 3SG.IPFV=exist far
‘Melsisi is/is located far away’

(194) **batniaq* *m=du*
uphill 3SG.IPFV=exist

Geographic locational nouns include placenames, topographical areas and non-specific locational nouns. Some examples of geographic locational nouns which are placenames are shown in the table below.

Table 2.20 Geographic Locational Nouns (Placenames)

Placenames:	Contextual information
<i>Sovlet</i>	sub-regions of village (here villages within Bwaravet)
<i>Lalpse</i>	
<i>Vanabil</i>	
<i>Bwaravet</i>	villages
<i>Ranror</i>	
<i>Slie</i>	
<i>Melsisi</i>	towns or cities

<i>Vila</i>	
<i>Luganville</i>	
<i>Pentecost,</i>	islands of Vanuatu
<i>Efate, Santo, Ambae, Ambrym</i>	
<i>Fiji</i>	countries
<i>Australia</i>	
<i>England</i>	

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Other Geographic locational nouns denote topographical features or areas.

Table 2.21 Geographic Locational Nouns (Topographical)

Landmarks	Gloss
<i>ót</i>	‘shore’
<i>imri</i>	‘bush area between villages on coast and middle bush’ (compare <i>dieb</i> ‘middle/dark bush’, a common noun)
<i>rovre</i>	‘settlement’ (village/town)
<i>lik</i>	‘east coast’ (of Pentecost)

2.5.2.1.2 Relational Locational Nouns

Relational locational nouns include geocentric terms, positional terms and non-specific locational nouns. The geocentric terms express locations and directions along axes which run along the coastline and perpendicular to it, as well as out to sea. Geocentric terms are used in the spatial referencing system in small and medium-scale space on land, as well as out to sea on a navigational scale. They also have pragmatic functions. Geocentric terms are investigated in Chapter 6.

Table 2.22 Relational Locational Nouns (Geocentric)

Geocentric term	Gloss
<i>imriaq</i>	‘uphillwards’
<i>itniaq</i>	‘downhillwards’
<i>bamriaq</i>	‘uphill’
<i>batniaq</i>	‘downhill’
<i>siv</i>	‘northwards’ (along coastline)
<i>siak</i>	‘southwards’ (along coastline)
<i>basiv</i>	‘north’ (along coastline)
<i>basiak</i>	‘south’ (along coastline)

Positional terms express facets or areas identified by relation to an anchor point and are discussed in more detail in Chapters 3 and 5.

Table 2.23 Relational Locational Nouns (Positional)

Positional Term	Gloss
<i>zek</i>	‘behind/back of’
<i>mwo</i>	‘front/front of’
<i>zvan</i>	‘down’
<i>mre</i>	‘up’

In (195) a distal demonstrative cliticizes onto *zek* ‘behind’.

- (195) *m=we* *zek=dae*
 3SG.IPFV=lie behind=DIST
 ‘It’s (lying) behind (something) there.’

In (196) *zek* occurs in the possessum slot of an associative possession construction:

- (196) *m=pet* *zek* *na-n* *Moses*
 3SG.IPFV=stand behind ASSOC-CONST M
lia-n *gilgilkor* *en=dae*
 side-CONST wall there=DIST
 ‘It’s (standing) behind Moses, against the wall over there.’

Finally, non-specific locational nouns have locational semantics but do not refer to identifiable places or regions.

Table 2.24 Non-specific Locational Nouns

Term	Gloss
<i>kzót</i>	‘somewhere’
<i>ebe</i>	‘interrogative’
<i>navwót</i>	‘far place’
<i>en</i>	‘there’

2.5.2.2 Temporal Nouns

Temporal nouns specify times of day, certain days, and periods of time. Properties of temporal nouns are largely the same as other local nouns, where they differ is listed below. Temporal nouns:

- select the interrogative expression *nangeh* ‘when?’ or *taron ske* ‘what time?’;
- expressing un-fixed periods of time (not fixed periods such as ‘day’) can be modified by the degree word *tés* ‘a little’;
- expressing fixed periods (‘day’, ‘month’) can be modified by a numeral;
- do not occur in associative possession constructions, except for *zek* and *mwo* which are listed under local nouns but also have temporal semantics.

Table 2.25 Temporal Nouns

Term	Gloss
<i>mwaqrek</i>	‘today’
<i>vanren</i>	‘early morning/dawn’
<i>vansie</i>	‘after dawn’
<i>vangren</i>	‘morning’
<i>vwangrev</i>	‘evening’
<i>nano</i>	‘yesterday’
<i>temto</i>	‘a long time ago/before now’
<i>naweh</i>	‘a time before/earlier/short time ago’
<i>kramaze</i>	‘a while/a period of time’
<i>nangeh</i>	‘when/what time’
<i>zek</i>	‘after’ (also locational noun)
<i>mwo</i>	‘before’ (also locational noun)
<i>bwóng</i>	‘night’
<i>nadone</i>	‘now’
<i>nadoned</i>	‘now’ (immediate/ from this time)
<i>nanzedae</i>	‘at that time/then’
<i>kzót</i>	‘some/an unknown time’ (i.e. unspecific) (also locational noun)

Some nouns have both temporal and locational semantics: *zek* ‘behind/at the back of’ and ‘after’, *mwo* ‘in front/at the front of’, also *kzót* ‘somewhere’ and ‘sometime’.

2.6 Verbs and the Verb Complex

The other major word class in Ske is verbs. Criteria for analysing a form as a verb is if the form can be marked for mood, tense-aspect and polarity (Schachter & Shopen 2007: 9)

The verbal complex in Ske consists of the following elements:

Pre-Head: [subject proclitic] [prospective] [relative aspect] [mood]

Head: Verb 1 (verbs/adverb)

Post Head: [valency marker] [completive]

Subjects are indicated in most phrases by a subject marker. Objects are not indexed on the verb in Ske and are optionally overt, either as NPs or pronominal forms. The head of a VP may be a single verb, a serial verb construction or other type of verb combination. The serial verb construction typically consists of two verbs but can be made up of three. Adverbial forms are variously referred to as ‘extended forms’ (Hyslop 2001); ‘adverbs’ (Thieberger 2004); ‘verbal adjuncts’ (François 2005) and ‘V2s of SVCs’ (Schneider 2008) in descriptions of Vanuatu languages. Verb classes and adverbs which function in verb+adverb combinations are discussed further in 2.6.2.

2.6.1 Subject Pronouns

Subject pronouns or markers occur in almost all verbal clauses. They are proclitics which attach to the predicate or any verbal particle which precedes the verb. Subject markers are portmanteau forms which express tense/aspect distinctions as well as person and number of the subject and inclusive/exclusive distinctions. Subject markers distinguish between dual and plural number whereas other pronominals, independent pronouns and possessive suffixes, make a singular versus non-singular distinction only. Subject markers are listed in the table below.

Table 2.26 Subject Pronouns

First		perfective	imperfective	future
EXCL	SG	<i>ni</i>	<i>mwa</i>	<i>mwade</i>
	DU	<i>mwara</i>	<i>mwamra</i>	<i>mwadra</i>
	PL	<i>mwave/mwabe</i>	<i>mwabe</i>	<i>mwadve</i>
INCL	DU	<i>kra</i>	<i>ta</i>	<i>tra</i>
	PL	<i>kve</i>	<i>pe</i>	<i>tve</i>
Second	SG	<i>ki / ti</i>	<i>kmwe</i>	<i>ti</i>
	DU	<i>kria/ dria</i>	<i>mria</i>	<i>dria</i>
	PL	<i>kvie</i>	<i>bi</i>	<i>dvie</i>
Third	SG	<i>a</i>	<i>m, mwe, mw</i>	<i>de</i>
	DU	<i>ara</i>	<i>mra</i>	<i>dra</i>
	PL	<i>ave</i>	<i>be</i>	<i>dve</i>

The third person singular imperfective subject marker has three allomorphs: *mwe=* and *m= mw=* which cliticise on to an element: *mwe=* if the next element has a consonant cluster initially; *m=* if the following element is single-consonant initial, and; *mw=* if the next element is a back vowel²⁰. A number of transitive-intransitive verb pairs show an alternation in which the transitive form has an initial consonant cluster and the intransitive form does not, triggering either *mwe=* or *m=* so as not to violate the maximal syllable structure of Ske (2.1.3). In (197) the intransitive form of the verb ‘blow.INTR’ *riv* is not cluster-initial and in (198) the transitive form *rvi* ‘blow.TR’ which does have an initial consonant cluster, is shown.

- (197) *leng m=riv~riv*
 wind 3SG.IPM=REDUP~blow.INTR
 ‘The wind is blowing’

²⁰ The back vowel is realised as a nasal in this case. It is not written in the orthography.

- (198) *leng mwe=rvi waq*
 wind 3SG.IPM=blow.TR ship
 ‘The wind is blowing the ship.’

Some of the subject markers are falling out of use, heard only in the language of the older generation. In the table of subject markers above, the alternative forms are shown. For example, ‘2SG.PFV’ can be *ki* or *ti*. The form on the left of the slash symbol indicates the form used by older speakers, the form on the right indicates the one used by younger speakers.

2.6.1.1 Perfective and Imperfective Aspect

Perfective aspect imposes boundaries on situations. A perfective ‘presupposes a situation consisting of three phases: a prior situation in which there is no activity or no state holds, then a phase of change and transition, and an ensuing situation after which no more change is to be expected, and that static situation that results should remain in force for the foreseeable future’ (Timberlake 2007: 292). Perfective aspect is contrasted with imperfective aspect in Ske for situations whose context is not in the future.

Perfective aspect interacts with the lexical aspect of the predicate. Stative verbs ‘report situations that do not change [...] and can be expected to continue by inertia’ (Timberlake 2007: 284). In Ske, when stative verbs are marked for imperfective aspect, the second phase is described and a change in state occurs (199).

- (199) *bwong mwe=mrav ae ót ren m=but~vut*
 night 3SG.IPFV=long and place day 3SG.IPFV=REDUP~short
 ‘The night is getting long and daytime is getting (really) short.’ (ec-b8-35)

When stative predicates in Ske are marked for perfective aspect, then the final stage is referred to: no more change is expected and since stative verbs report situations that continue by inertia, the situation holds and a state is described (200).

- (200) *ren a=mrav*
 day 3SG.PFV=long
 ‘The day is long.’ (ec-b8-35)

The semantics of aspect marking on stative verbs contrasts with that of non-stative verbs. Process predicates, according to Timberlake ‘do not continue by inertia [..to] continue, processes require an input of energy’ (2007: 284). Process predicates change in a continuous fashion; if the event is divided into intervals, each interval is equivalent. When process predicates are marked for imperfective aspect, the situation they describe occurring in the here and now is being maintained, but is in danger of ceasing’ (ibid). In (201) the process verb ‘sleep’ is marked for imperfective:

- (201) *mwe=mzor na-n=nam*
 3SG.IPFV=sleep ASSOC-CONST=PROX.ADDR
 ‘Is he sleeping on you there’

When marked for perfective aspect the activity has ceased and no change has resulted (202).

- (202) *a=mzor*
 3SG.PFV=sleep
 ‘He slept’ (and now is awake again).’

In (203) below the existential verb *du* (in its primary form see 2.5.1.4) and the verb describing the motion created by an earthquake ‘quake.INT’ *rur* are marked for perfective aspect. ‘Quake’ *rur* is a type of process verb which is intrinsically cyclical: like other process verbs ‘quaking’ requires ongoing effort to be maintained but is usually an action which is repeated. Like other process verbs, when marked for perfective aspect the action has ceased.

- (203) *ni=zu ra-n waq taron qane rur*
 1SG.PFV=exist1 on-CONST ship time that quake
a=rur
 3SG.PFV=quake
 ‘I was on the ship when the earthquake quaked.’

Liminal predicates report ‘situations that change in a way that is discontinuous and irreversible’ (Timberlake 2007: 284). When the perfective aspect marks a liminal predicate in Ske, such as *gore* ‘rip.TR’ (204) the event is complete and the damage it has done to the person’s leg is irreversible: the wound is visible and the situation does not return to the way it was prior to the event, as is the case with process verbs.

- (204) *tubul* *a=gore* *sihlie-n*
 bamboo 3SGPFV= rip.TR leg-3SG.POSS
 ‘The bamboo has cut his leg.’

However, when liminal predicates are marked for imperfective aspect they do not describe a situation that is ongoing until it ceases, like process predicates of the ‘sleep’ type, because liminal predicates are always moving towards a definitive result. One function of reduplication is to code iterativity and liminal predicates and cyclical process verbs are often reduplicated to express the ongoing-ness of the situation or repeated actions.

The cyclical process verb *guh* ‘shake’ is reduplicated in (205) below to describe a repeated and ongoing cyclical event.

- (205) *m=gu~guh*
 3SG.IPFV=REDUP~shake
 ‘It is shaking.’

A detailed analysis of the lexical aspect of Ske verbs will not be given here, but will be referred to when appropriate. For example aspectual marking with respect to the set of locative predicates is described in Chapter 4. Locative predicates also reduplicate but the resulting semantics are different to those presented above. Locative predicates provide a lexical mechanism for expressing progressive aspect in asymmetrical SVCs which is not coded by subject markers in Ske.

Imperfective marking on non-stative verbs describes activities in progress at the time of speaking, as in (201) and (205) above, as well as habitual actions or situations. In (206) the existential verb *du* is marked for imperfective aspect when describing Chief Paul’s home and where he lives. The land-diving tower was standing at the time of

speaking, so imperfective aspect could code both a current situation, or an habitual yearly event, as the tower is always built in the same location.

- (206) *Tsif Paul m=du imriaq na-n ót*
 Chief P 3SG.IPFV=stay uphillwards ASSOC-3SG.POSS place
[ne qol m=du en]
 REL land.dive 3SG.IPFV=stay there
 ‘Chief Paul lives uphill of the place where the land-diving is.’

In (207) however, it is clear that an habitual event is being described; Elder Cain was explaining the meanings behind Ske month-names by describing what occurs in nature during each month of the year. The non-stative verbs *ba* ‘go’ and *mwur* ‘grow’ are marked for imperfective aspect which denotes habitual action, *trieb* ‘be.clear’ is a stative verb and is marked for imperfective aspect to describe a change of state and then perfective aspect to describe a state.

- (207) *blie-m bwet ae kmwe=ba la=vo vleh*
 CL.VAL-2SG.POSS taro CONJ 2SG.IPFV=go ES=weed weed
tnie ót lo-n loga lo-n mwe=trieb
 ABL place in-3SG.POSS PURP in-3SG.POSS 3SG.IPFV=clear
ae zakle be=mwur pmiah lo-n ót
 CONJ thing 3PL.IPFV=grow well in-CONST place
a=trieb
 3SG.PFV=clear
 ‘Your taro, well, you go and weed the weeds out from it so that it becomes clear, things grow well in clear places’ (ec-tr1-208)

In non-histocial narratives, stories often start in the perfective and then the action continues in the imperfective. In (208) *tliek*, describing a movement without a direction, or goal ‘wander/drift’ is marked for perfective and then the action begins with the animals speaking to each other, where *bne* ‘say.TR’ is marked for imperfective aspect.

- (208) *a=vé balvial ae mwu ae mlao*
 3SG.PFV=COP one.time CONJ chicken CONJ incubator.bird
ara=tliek, nanae mlao mwe=bne na
 3DU.PFV=wander, then incubator.bird 3SG.IPFV=say.TR COMP
'mwade=goh kollo ne iq'
 '1SG.EXC.FUT=clean.INT strong TR 2SG.IND'
ae mu mwe=bne na 'yoh!'
 CONJ chicken 3SG.IPFV=say.TR COMP 'ok'
 'Once upon a time, a chicken and an incubator bird wandered about, then
 the incubator bird says to the chicken, 'I'm going to give you a good
 clean', and the chicken says, 'ok!' (ec-tr2-16)

Historical narratives mostly occur in the perfective aspect but speakers may also use the imperfective aspect, often when introducing dialogue. After this, they then typically revert back to the perfective aspect.

2.6.1.2 Future Tense

The future tense marker is used with events that are predicted to happen or anticipated:

In (209) the arrival of a boat which arrives every week is anticipated:

- (209) *de=me nangeh?*
 3SG.FUT=come when?
 'When's it coming?'

In (210) the trajectory of the sun is predicted to shine on the shady spot we were sitting in:

- (210) *zial de=me la=me ae zial*
 sun 3SG.FUT=come ES=come CONJ sun
de=sul-si ót
 3SG.FUT=shine-TR place
 'The sun's going to come and come and the sun's going to shine on the
 place'

It is also used to speak of planned events (211), where Minnie was telling me about her idea for the design of a basket she was weaving:

- (211) *ti~tih-an* *de=ba* *lia-n* *tobang*
 REDUP~write.INTR-NMLZ 3SG.FUT=go side-CONST basket
m=gene
 3SG.IPFV=alike.TR
 ‘There’s going to be writing on it like this.’

Positive imperative constructions are marked with the future tense marker (212), as are negatives. However, negative imperatives are also marked for irrealis mood (213).

- (218) *ti=ba* *do* *rnga~rngah*
 2SG.FUT=go sit REDUP~quiet
 ‘Go and sit down and rest/be quiet’

- (219) *kare* *ti=mwó* *ba* *lo-n* *septic=nam*
 NEG 2SG.FUT=IRR go in-CONST septic.tank=PROX.ADDR
 ‘Don’t go into the (hole dug for the) septic tank there (by you)!’

Future tense interacts with relative aspect, completive aspect, as well as mood marker, as described further below.

2.6.2 Realis and Irrealis: Verb-initial Consonant Mutation

Verb-initial consonant mutation is a common feature of Central Vanuatu languages (Lynch 2004). Verbs which mutate have two forms: one is used when the verb is marked for irrealis and the other, realis.

A number of Ske verbs and their nominalised forms reveal that consonant mutation occurs but is not a fully-functional or productive system in Ske.

Consonants which mutate in Ske are:

Primary Form		Secondary Form	Examples
[β]	→	[^m b]	[βa] <i>va</i> ‘go.1’ → [^m ba] <i>ba</i> ‘go.2’
[z]	→	[ⁿ d]	[zu] <i>zu</i> ‘exist.1’ → [du] <i>du</i> ‘exist.2’

Nominalised forms reflect the mutation: primary forms only are suffixed by the nominaliser *-an*.

Primary Form	Secondary Form
<i>va-an</i> ‘the going’	* <i>ba-an</i>
<i>zu-an</i> ‘existence/life’	* <i>du-an</i>

As mentioned, in languages where the system is fully-functional, primary forms occur with irrealis marked verbs and secondary forms occur with realis marked verbs. Contrary to this, in Ske, primary forms occur with verbs marked with perfective aspect and secondary forms occur with form marked for imperfective aspect and future tense.

Compare the forms for Ske and Aulua spoken in Malekula (Aulua data from Lynch 2004: 323):

Primary Form

Ske	Aulua
(214a)	(b)
<i>a=va</i>	<i>t-i-ven</i>
3SG.PFV=go.1	FUT-3SG-go.1
‘He/she went’	He/she will go’

Secondary Form

Ske	Aulua	
(215a)	(b)	(c)
<i>m=ba</i>	<i>de=ba</i>	<i>i-^mben</i>
3SG.IPFV=go.2	3SG.FUT=go.2	3SG-R-go.2
‘He/She goes/is going.’	‘He/She will go.’	‘He/she went.’

A further point is that the primary forms only occur when the subject pronoun indicates the person is singular in number (first, second and third person singular). But, when subject markers specify dual and plural number, the secondary form is used. Compare (214a) above, where a third person singular subject occurs with a primary form, with (216a) and (216b), which have dual and plural subjects respectively, and where a secondary form is used. All examples are marked for perfective aspect.

(216a)

ara=ba

3DU.PFV=go.2

‘They (two) went’

(b)

ave=ba

3PL.PFV.go.2

‘They (three) went’

Finally, secondary forms occur with the irrealis marker *mwo* (2.6.5). In a fully-functional system, the primary form would be expected to occur here as the verb would be marked for irrealis.

Verb initial-consonant mutation is reflected in Ske, but it is not a fully-functional system and the mutation does not appear to express any meaningful distinctions. Among the verbs which mutate are the existential *du* mentioned above and the postural verb *do* ‘sit’.

2.6.3 Prospective Tense

The prospective tense is indicated by a pre-verbal particle which is marked for number (dual and plural are marked, singular is unmarked). The prospective aspect particle is used for events which will occur subsequent to a given time reference. The event is known to be imminent as the speaker has some evidence or knowledge that it is due to happen, it can also express volition or intention. For example, I had asked my consultants to repeat a recorded exercise when the first attempt had gone wrong. Pastor Timothy then made a short introduction at the beginning of the second version in which he talks about what is about to happen (217).

- (217) *be qane alvwal=ned ae kare a=va lo-n*
 but the.one first=PROX1 CONJ NEG 3SG.PFV=go in-CONST
tep ae nanzené pe=mde-ve tov~tov kare
 tape CONJ now 1PL.INCL=PROSP-PL REDUP~talk.TR again
 ‘But this first one didn’t go on the tape so now we are about to talk again.’
 (2009-05-12-00536au-pt)

Evidence that an event is due to happen could be that a fruit is ripe and others have fallen near it (218).

- (218) *Ti=rarae! ól mwe=mde péh!*
 2SG.FUT=take.care coconut 3SG.IPFV=PROSP fall
 ‘Look out! The coconut’s about to fall!’

There are no examples in the corpus of prospective aspect with verbs marked for perfective aspect or future tense; no negative evidence of whether this is possible is available.

Stative verbs cannot be marked for prospective aspect when also marked for imperfective aspect denoting a change of state.

- (219) **ri mwe=-mde bal~bal*
 water 3SG.IPFV=PROSP REDUP~cold
 *Intended: ‘The water is about to be getting colder.’ (pt-b5-60)

2.6.4 Relative Tense

The preverbal particle *ga* marks a verb to indicate that the event occurs very close in time to another situation. It can mark a verb for relative aspect in combination with future tense and perfective or imperfective subject markers. Relative tense interacts with the completive marker *ze*: when it occurs without the completive marker, the event marked with relative tense occurs just subsequent to another event, when it occurs with the completive marker, it occurs just prior to another event.

The event or situation it occurs relative to is either referred to in a preceding sentence or is understood in context. For example, at a wedding, the people of Bwaravet must

eat subsequent to their guests being given food (220). Both sentences are marked for future tense, the second sentence, where the relative tense marker also occurs, happens at a time in the future subsequent to the future event described by the first sentence.

- (220) *ti=sakrene* *anian* *mni* *zaoriot* *nier* *tabzón*
 2SG.FUT=give.TR food RECIP stranger PL first
ae ***tve=ga*** ***an*** *zek*
 CONJ 1PL.INCL.FUT=RT eat.INTR behind
 ‘Give the food to the guests (from other villages) first and then we’ll eat.’

In (221) below, Jill tells how she had just washed in the river when the floodwater raced down. Both clauses are marked for imperfective aspect. The event of the first clause happens prior to the event of the second clause; the relative tense marker indicates that the event of the second clause occurred very soon afterwards.

- (221) *ni=loh* *kahó* *ae* *ri* *ziav* ***a=ga*** *me*
 1SG.PFV=bathe already CONJ water flood 3SG.PFV=RT come
 ‘I had already bathed and then the floodwater came’ (jm-b15-127)

In (222) both sentences are marked for perfective aspect, like in (221), and the second clause is marked for relative tense. However here, the second clause is also marked by the completive marker *ze*. The completive marker indicates that the event it marks was already complete before the event of the first clause. The relative tense marker then indicates that the completed action of the second clause occurred only just prior to the event of the first clause.

- (222) *ki=me* *be* *Jonas* ***a=ga*** *me* ***ze***
 2SG.PFV=come but J 3SG.PFV=RT come COMP
 ‘You came but Jonas had just arrived before.’

2.6.5 Irrealis Mood Marker

The mood marker *mwo* is a preverbal particle used in conditional clauses and counterfactuals and in a number of complement clauses which express non-assertive

propositions following desiderative and propositional attitude CTPs; it is an irrealis mood marker.

The mood marker occurs in some complements of desiderative predicates. A complement is marked for irrealis mood when the complement is non-assertive (Noonan 2007: 210). In (223) the complement of a desiderative predicate is assertive and reports a positive propositional attitude; we can see the woman wants to go to the market at the airport because she is holding a basket of food to sell:

- (223) *m=dorngi* *na* *de=ba* *ra-n* *srek*
 3SG.IPFV=want COMP 3SG.FUT=go on-CONST field
 ‘She wants to go to the field (airport).’ (cw-b9-129)

In (224) however the complement reports a negative propositional attitude; the woman wishes her husband would go and work in the garden, but had a lot of kava the night before and may not go.

- (224) *m=dorngi* *na* *zaha-n* *a=mwo* *ba*
 3SG.IPFV=want COMP husband-3SG.POSS 3SG.PFV=IRR go
 lalót
 garden
 ‘She wishes her husband would go to the garden.’ (cw-b9-129)

Note that in both complements above, the complement has a future time reference (relative to the time reference of the main clause) but the positive proposition in (223) is marked for future tense, whereas the negative proposition is marked for perfective aspect (224).

The predicate of a conditional clause expressing a hypothetical situation and therefore marked by *mwó* is also marked for perfective aspect. In (225) Pastor Timothy wonders where else he would live in the world other than Pentecost; the existential verb *du*, with the meaning ‘live’ or ‘stay’ is marked for perfective aspect:

- (225) *qane* *na* *kare* *ni=mwó* *du* *Pentikos*
 if COMP NEG 1SG.EXCL.PFV=IRR exist P
 ae *ni=mwó* *ba* *du* *ebe?*
 CONJ 1SG.EXCL.PFV=IRR go exist where?
 ‘If I didn’t live in Pentecost, where would I go and live’ (pt-b5-51)

Phrases expressing uncertainty or wishes are marked for irrealis mood and perfective aspect as in (226), where Ben had already left Pentecost and would miss the celebration of the opening of the new airstrip:

- (226) *qane Ben a=mwó du!*
 if B 3SG.PFV=IRR exist
 ‘If only Ben were here!’

Naomi and Ernie in (227) were recorded telling a narrative of what happened when Hurricane Nigel struck and in it discussed their plans after the hurricane destroyed their house. They express a number of wishes and these phrases are marked by *mwó*.

- (227) *mwamra=du nanzenen la=tov~tov na*
 1DU.EXCL=IPFV=exist then ES=REDUP~talk.INT COMP
a=mwó bis qane mwara=mwó um=ne ze
 3SG.PFV=IRR good if 1DU.EXCL.PFV=IRR make=TR ART
vale-n anian ne mwara=mwó boh=ne
 house-CONST food REL 1DU.EXCL.PFV=IRR sell=TR
 ‘We are saying then that it would be good if we built a house for food
 (restaurant) that we could sell.’

Counterfactuals and phrases expressing other hypothetical situations are marked for mood but do not require special aspect marking. In (228) a group of people were gathered for a meeting but the chief had not arrived as planned, a message was sent to say the he would no longer be joining us, *me* ‘come’ is marked for irrealis mood and for future tense:

- (228) *karze de=mwó me*
 no.longer 3SG.FUT=IRR come
 ‘He’s no longer coming.’

2.6.6 Verb Classes and Transitivity Morphology

Verbs in Ske are intransitive, ambitransitive or transitive; there are no di-transitive verbs in Ske.

As previously mentioned, there is no object-marking on verbs in Ske. When an object is licensed by a verb, the object is optionally overt. Both (229) with an overt NP object and (230) with no overt object, are grammatically correct.

- (229) *a=kale* *bwa-n* *ól* *ae* *a=péh*
 3SG.PFV=climb.TR head-CONST coconut CONJ 3SG.PFV=fall
 ‘He climbed the coconut palm and fell.’

- (230) *a=kale*
 3SG.PFV=climb.TR
 ‘He climbed (it).’

Transitiving strategies in Ske reflect the Proto-Oceanic close and remote transitives affixes **-i* / *-akini* (Ross 2004; Margetts 2007). A number of transitive verbs in Ske reflect the affixes, being *-i*, *-e* or *-ne* final and other intransitive verbs may derive a transitive verb by means of the transitivising clitic *=ne*. The functions of the POc affixes are summarised by Thieberger (2004) as follows:

Semantic Roles of **-i*

- patients or products of agentive verbs
- stimuli/targets of psychological verbs
- location/goal of motion and posture verbs

Semantic Roles of **-akini*

- instrument with agentive verbs
- concomitant with motion and posture verbs
- cause or concomitant with psychological verbs

Some examples of verbs whose objects have functions above and reflect **-i* are: agentive verbs with objects which are patients: *gore* ‘rip’ or *dale* ‘cut’; among psychological verbs whose objects are stimuli *dorngi* ‘want’ and *lse* ‘see’. Other verbs reflect **-akini* with the functions above are, for example the psychological verb *mzene* ‘scared.of’ whose object is the cause of the fear. However a number of the functions expressed by **-i* have spread to verbs which reflect **-akini*. Furthermore

functions of *-*akini* are now expressed by prepositions (2.6) including the preposition *ne* which marks the Instrument of an agentive verb or the Goal of a motion verb.

The transitivising suffix *-si* has more restricted functions than *=ne*; its objects are patients of some psychological verbs (*man-si* ‘laugh.at’ and *deng-si* ‘cry.for’) and also the patient of *sul-si* ‘illuminate/shine.light.on’. In (231) *-si* attaches directly to *man* ‘laugh’ and an adverb follows the introduced argument. Compare this example with (235) below where the clitic *=ne* attaches to the adverb *pinmiah* ‘well’.

- (231) *mwa=man-si* *iq* *pai*
 1SG.IPFV=laugh-TR 2SG.IND always
 ‘I always laugh at you.’

In (232) *=ne* cliticises onto the ambitransitive verb *um* ‘do/work’ which has no transitive form.

- (232) *óza* *mw=um=ne*
 leaf.medicine 3SG.IPFV=work=TR
 ‘The medicine is curing him/working on him.’ (2008-12-01-00077cw-ek)

In (233) the ambitransitive verb ‘cut’ has a direct object ‘wood’ and in (234) an oblique argument with the role of Instrument is marked by the preposition *ne*, whose object need not be overt (characteristic of Class II prepositions, see 2.6)

- (233) *Isaac* *a=zale* *udia*
 I 3SG.PFV=cut.TR wood
 ‘Isaac cut the tree.’
- 234) [*a=zale* (*udia*)] *ne* (*tlé*)
 3SG.PFV=cut.TR wood INSTR axe
 ‘He cut the tree with an axe.’

The transitivising clitic *=ne* introduces an object argument with the role of patient and the object is optionally overt. It attaches to the last element of the verb complex, preceding only an overt object argument which it introduces, as exemplified below.

The transitivising clitic *=ne* commonly occurs in verb combinations such as serial verb constructions (where V1 is intransitive) or in verb+adverb/extended form compounds (where the adverb or ‘extended form’ does not license an object) *=ne* licenses the direct object of the V1/main verb on the V2 or adverb. In (253) *gial* ‘know.TR’ (which has a transitive form *glia*) is modified by an adverb *pinmiah* ‘well’. The clitic *=ne* attaches on to the adverb and licenses the direct object of the verb.

- (235) *mwal nier dve=hru [la=ve gial pinmiah]=ne*
 child PL 3PL.FUT=study.TR ES=PL know.INT well=TR
 Children, (you must) study and you will know it well.’ (pt-yumi1-10)

With respect to their transitivity, verbs in Ske are classed as follows:

Strictly intransitive verbs never take any kind of object

Ambitransitive verbs in Ske may be intransitive or transitive. They differ according to the shape of their transitive and intransitive forms:

- a. Transitive form derived by clitic *=ne*
- b. Transitive form derived by suffix *-si/-se*
- c. Intransitive/ transitive form shows *k/ne* alternation
- d. Intransitive/transitive form shows *k/(V)* alternation
- e. Intransitive/transitive form show *(C)/e* alternation
- f. Intransitive/transitive form show other phonological alternation

Strictly transitive verbs have no intransitive form

Extended forms occur after the V1 in verb combinations (Hyslop 2001; Thieberger 2004; François 2004; Schneider 2010). The verb combination is not an SVC as the form following the main verb cannot function alone as a predicate (Aikhenvald & Dixon 2006). Adverbs may also occur in this position (*pai* ‘always, *pinmiah* ‘well’) but other ‘extended forms’ may be able to license an argument and some can reduplicate.

In (236) the extended form reduplicates, like a verb, but cannot occur as the main predicate (237).

- (236) *ti=dal* *pre~vre*
 2SG.FUT=cut.INTR REDUP~break
 ‘Cut it into small pieces’

- (237) **ti=pre* /*pre~vre*
 2SG.FUT=break /REDUP~break

In (238) the extended form licences an object and the main verb must occur in its intransitive form. If the extended form were not present, the main verb would occur in its transitive form (239).

- (238) *de=wsek* *pni* *ni* *ó* *zivzak ?*
 3SG.FUT=hit.INTR kill 3SG.IND or something
 ‘She’ll kill it (by hitting it) or something?’

- (239) *de=wse* *ni*
 3SG.FUT.hit.TR 3SG.IND
 ‘She’ll hit it.’

Extended forms are thus verb-like in many ways and they interact with the main verb to reduce or increase valency of the verb combination, in the same way as an SVC (ibid). When extended forms follow a verb which has an intransitive form, that form is instantiated, as shown in (236) and (238). If the extended form does not license an object, the clitic *=ne* attaches to the extended form. If, on the other hand, the extended form can license an object, no transitivity morphology is required. A number of the extended forms have spatial meanings and are discussed in more depth in (3.6).

Verb classes are summarised in Table 2.27 below. Columns show how many arguments a verb has (one or two) and when the addition of transitivity

morphology with *-si* or *=ne* derives a transitive verb. The final column gives some examples of when the preposition *ne* marks an object for the role of Instrument.

Table 2.27 Verb Classes

Strictly intransitive	1 Argument	2 Arguments S/O	2 Arguments <i>-si/e</i> / <i>=ne</i>	Preposition <i>ne</i>
	Stative <i>rvang</i> ‘be.red’ <i>triek</i> ‘be.clear’ <i>broh</i> ‘be.black’			
	Dynamic <i>peh</i> ‘fall’ <i>an</i> ‘eat’ <i>mzor</i> ‘sleep’ <i>ba</i> ‘go’ <i>me</i> ‘come’ <i>met</i> ‘go.ADDR’ <i>mwól</i> ‘return’			
	<i>du</i> ‘exist’ <i>do</i> ‘sit’ <i>we</i> ‘lie’ <i>ka</i> ‘hang’ <i>sok</i> ‘be.gathered’ <i>sol</i> ‘be.pooled’			<i>ka ne</i> ‘hang by sthg.’ (a rope)
a. Ambitransitive (optional applicative object only)	<i>bang</i> ‘burn/hot’ <i>deng</i> ‘cry’ <i>man</i> ‘laugh’		<i>bang-se</i> ‘burn sthg’ <i>deng-si</i> ‘cry for’ <i>man-si</i> ‘laugh at’	<i>bang ne</i> ‘burn with’ (i.e. lantern burns with paraffin/solar)
b. Ambitransitive optional direct object/ applicative object	INT <i>bariev</i> ‘receive thanks’ <i>qe-</i> ‘be alike’ <i>krav</i> - look <i>tiel</i> ‘garden’ <i>um</i> ‘do/work’ <i>hmwan</i> ‘toil’	TR -ne <i>bariev-ne</i> ‘receive thanks for sthg’ <i>qe-ne</i> ‘be like sthg’ <i>krave-ne</i> ‘look for’ <i>tiel-ne</i> ‘tend garden’ <i>um-ne</i> ‘work on/ do sthg’ <i>hmwa(n)-ne</i> ‘toil on sthg’		<i>krav-ne ne</i> ‘look for sthg with’ (i.e. torch)
c. Ambitransitive	INT <i>_k</i> <i>sakrek</i> ‘give’	TRANS <i>_ne</i> <i>sakrene</i> ‘give sthg’		<i>te-ne ne</i> ‘hang

optional direct object/ applicative object	<i>tek</i> ‘hang’ <i>sek</i> ‘hook/fish’	<i>tene</i> ‘hang sthg’ <i>sene</i> ‘hook sthg/ catch fish’		sthg with’ (i.e. rope)
d. Ambitransitive optional direct object/ applicative object	INT _k <i>gohvek</i> ‘wash’ <i>sahrak</i> ‘show/ teach’ <i>sahvek</i> ‘make’ (plane.wood/ draw’)	TRANS _ (V) <i>gohve</i> ‘wash.TR’ <i>sahara</i> ‘teach.TR’ <i>sahve</i> ‘make.TR’		<i>gohve ne</i> ‘wash with’ (e.g soap’
e. Ambitransitive optional direct object/ applicative object	INT (V) <i>gor</i> ‘rip’ <i>kal</i> ‘climb’ <i>trov</i> ‘cover’ <i>rav</i> ‘pull’ <i>wsek</i> ‘hit’	TRANS _e <i>gore</i> ‘rip sthg’ <i>kale</i> ‘climb sthg’ <i>trove</i> ‘cover sthg’ <i>rave</i> ‘pull sthg’ <i>wse</i> ‘hit sthg’		<i>trove ne</i> ‘cover sthg with’ (e.g. material)
f. Ambitransitive optional direct object/ applicative object	Phonological alternation _CVC <i>bil</i> ‘count’ <i>gial</i> ‘know’ <i>hur</i> ‘study’ <i>kub</i> ‘hit’ <i>leh</i> ‘see’ <i>rong</i> ‘hear’ <i>sarkel</i> ‘change’ <i>uh</i> ‘ask’ <i>gan</i> ‘eat’ <i>bet</i> ‘say’	Phonological alternation _CCV <i>bli</i> ‘count sthg’ <i>glia</i> ‘know sthg’ <i>hru</i> ‘train/study sthg’ <i>kpu</i> ‘stone sthg’ <i>lse</i> ‘see sthg’ <i>rngo</i> ‘hear sthg’ <i>sarkle</i> ‘change sthg’ <i>wsi</i> ‘ask sthg’ <i>gne</i> ‘eat sthg’ <i>bne</i> ‘say sthg’		<i>kpu ne</i> ‘hit with’ (e.g. a stick)
Strictly transitive		<i>dungsi</i> ‘follow sthg’ <i>hria</i> ‘send sthg’ <i>hla</i> ‘heat sthg’ <i>tria</i> ‘banish someone’ <i>dorngi</i> ‘want sthg’ <i>vsi</i> ‘hold sthg’		?

Extended form	<i>tat</i> ‘secure’ <i>povoh</i> ‘upright’ <i>povrek</i> ‘heap’ <i>porsek</i> ‘right way’	<i>pni</i> ‘kill.dead’ <i>pre</i> ‘break’ <i>povrene</i> ‘heap’ <i>porsene</i> ‘right way’		
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2.6.7 Completive Marker

In most sentences when the completive marker *ze* ‘COMP’ is used, it is the final element of the verb complex: it appears immediately after an intransitive verb or follows the overt object of a transitive verb. It can also occur after an adjunct.

In (240) *ze* follows the adverb, *sir* ‘all’ and the transitive clitic =*ne*. In this example the NP object is not overt. A customer was asking after a small stock of solar lanterns in Jonas’s store, but Lesian told the customer there were none left.

- (240) *a=bwoh* *sir=ne* *ze*
3SG.PFV=sell all=TR COMP
‘He sold/He has sold all of them.’ (lt-b16-41)

The meaning of the completive article interacts with aspectual marking and lexical aspect of the verb. As in (240) above, when the completive article occurs with a liminal predicate which is marked for perfective aspect, a perfect aspect is conveyed and the completed action has some relevance to now.

However, when *ze* combines with imperfective marking on a verb, the sense of something happening already, earlier than expected, is conveyed. With non-stative predicates imperfective marking may also code habitual actions, but when *ze* is used, this is not the meaning, the here-and-now is intended: the action has started and is happening now. In (241) Minnie and I were descending the hill at the back of Bwaravet trying to get to her house before the rain started, but we didn’t quite make it.

- (241) *oh* *mw=oh* *ze*
rain 3SG.IPFV=rain COMP
‘It is raining (already).’ (mm-b13-9)

The completive marker may also occur after the subject in a verb phrase. In (242) the subject *sqe* ‘leaf/plate’ precedes the completive marker. The predicate is the existential verb *du* ‘exist’. With respect to lexical aspect, existential verbs and postural verbs are more like stative verbs than non-statives as they report situations that continue with inertia, but, unlike stative verbs, they are marked for imperfective aspect when that state is in evidence. In (242) the state that is the existence of the plate ready for food to be placed in it, occurs earlier than expected: at a big meal, people brought food and a plate had already been placed ready for someone to put their cooking on.

- (242) *sqe ze m=du =nam*
 leaf/plate COMP 3SG.IPFV=exist =PROX.ADDR
 ‘There’s already a plate there (by you).’

Another interesting example came when, at an orthography workshop, we were all waiting for the chief to arrive before we could start. Pastor Timoti saw him walking towards the church where the workshop was located and announced (243). The completive marker follows the noun ‘chief’.

- (243) *tsif ze m=ba me en=dae*
 chief COMP 3SG.IPFV=go come there=DIST
 ‘There’s the chief, coming towards us.’

2.7 Prepositions

In the previous sections I have referred to classes of prepositions which immediately precede an NP which is a non-core argument in Ske as adjuncts. Classification of forms with these functions is problematic in Ske as well as other Oceanic languages and there is no obvious solution since there forms are varied now and in their origin.

Adpositions are ‘words that combine with noun phrases and that indicate the semantic relationship of that noun phrase to the verb’ (Dryer 2007: 82). Ske possesses a large number of what we term ‘preposition’ which vary in both form and function. Prepositions have been recognised as a class of words in many Oceanic languages, including South Efate (Thieberger 2004) and N.E Ambae (Hyslop 2001) and have

been reconstructed for Proto-Oceanic (Pawley 1973), although there is much debate about the term (Durie 1988). We refer to the group of forms here as prepositions because they are all able to mark a noun or noun phrase, although not all prepositions can mark all classes of nouns. They occur as heads of adjuncts and mark their nominal objects typically for the role of Location. It would not however be accurate to term all the forms here Locatives, because the group also includes forms which mark their object for roles such as Goal, Source or Instrument, but also Beneficiary or Addressee of an utterance predicate.

A number of prepositions express spatial meaning thus the category is highly relevant to this study. Marking of nouns by prepositions is also a key diagnostic test for ascertaining to which class of nouns a noun belongs. As we have seen in section (2.5), locational nouns are not marked by a preposition. Furthermore, they are a complex and varied group both in terms of their form and function and are described here in a separate section for these reasons. Hyslop (2001) identifies three classes of prepositions in N.E Ambae: noun-like, verb-like and true prepositions. This classification is useful in Ske, as we find their diversities are mirrored to some extent by those of N.E Ambae. This is not surprising: Durie (1988) suggests that a number of ‘verbal prepositions’ result from a diachronic shift from serial verb constructions. Both Durie (*ibid*) and Bowden (1992) describe grammaticalisation processes of verbal and nominal forms, respectively, which have developed into prepositions by way of various other categorial stages and as such have morphological and syntactic as well as functional characteristics which are similar to their erstwhile form-class. The diverse forms of prepositions in Ske are thus a common feature of Oceanic languages.

It is fair to say, then, that the term preposition is not wholly adequate here, given the diversity of forms and meanings we find and also given that we are probably more familiar with the altogether more uniform and discrete set of words that are classed together as prepositions in Indo-European languages. However, we group them together here for the reasons outlined above and further below, but will also highlight where they differ.

Prepositions all immediately precede an NP which is not a core argument of the verb and mark the NP for roles such as Locative, Benefactive, Purposive, Instrumental,

Source and Goal. There are three subgroups of prepositions. Formal criteria to distinguish classes of prepositions are: whether they are ‘noun-like’ and can function as subject NPs, if they take a possessive suffix (or construct suffix) or, if the noun they mark must be overt. Class I are those which are ‘noun-like’; Class II are ‘verb-like’ and Class III are ‘locatives’. The classes are summarised below and listed in the tables below that.

- | | |
|-----------|---|
| Class I | <ul style="list-style-type: none"> - take obligatory possessive suffix - can function as nominal subjects in a main clause - NP object need not be overt (is indicated by possessive suffix) |
| Class II | <ul style="list-style-type: none"> - do not take possessive suffix - NP object need not be overt - cannot function as nominal subject |
| Class III | <ul style="list-style-type: none"> - do not take possessive suffix marker - NP object must be overt - cannot function as nominal subject |

2.7.1 Class I Prepositions

Within the Class I set, there are a number of what are often termed ‘relational nouns’ in Oceanic literature (Hyslop 2001) and ‘bound relational nouns’ here. They resemble bound nouns, like all Class I prepositions, in that they take obligatory possessive suffix marking. They often express a facet of the object they mark, which is also the case with some common bound nouns, such as *dumwie* ‘peak’ (of a mountain), for example, but they exhibit some differences to other such bound nouns too. To explain this further, we will discuss the prepositions which are classed together in the Class I set and also compare them with other forms in that class and from other classes. Forms included in the Class I set are seemingly on a continuum towards grammaticalisation, moving from being a noun to a noun-like preposition. For example, some, like *sa-* which occurs after utterance predicates, only resemble nouns in that they take possessive marking; some, like *lo* ‘in/inside’, resemble nouns in that they take possessive marking and can function as the head of an NP in subject position as well as in the head of an adjunct; others, like *mwari* ‘side’ are less

grammaticised and sometimes appear as heads of adjuncts, but have also been found in the corpus occurring in an adjunct, but as the object of another preposition. These last two, *lo* ‘in/inside’ and *mwari* ‘side’ are examples of those Class I prepositions which we refer to later as bound relational nouns. In the examples below, *lo* is shown to function as both the NP subject of a verb (244), but also the head of an adjunct (245), where it marks its object for the role of Location, or more specifically, an interior location: ‘at its insides’.

- (244) *lo-n* *m=ka=kzat*
inside-3SG.POSS 3SG.IPFV=REDUP~bite.INTR
‘He is hungry.’ (Lit: His insides are biting/irritating.)

- (245) *bwet* *m=du* *lo-n* *tobang*
taro 3SG.IPFV=exist inside-CONST basket
‘The taro is in the basket.’

In (245) *lo* occurs in an identical position, that is, as the head of an adjunct, marking a nominal object, to other classes of preposition. Compare for example the Class II preposition *tnie* ‘ABL’ which occurs in the adjunct following a transitive predicate (246) and the Class III preposition *lal* ‘at’ which occurs in an adjunct following the intransitive existential verb (247).

- (246) *a=lev* *subre=ne* *bwet* *tnie* *tobang*
3SG.PFV= take place.many=TR taro ABL basket
‘He took the taros out the basket.’

- (247) *dahe-n* *m=du* *lal* *im*
mother-3SG.POSS 3SG.IPFV=exist at house
‘His/her mother is in/at the house.’

Another Class I preposition *sa* cannot occur as the nominal subject of a verb; it can only occur in an adjunct where it marks a nominal object, but it takes obligatory possessive marking (248).

- (248) *a=vne* *sa-q*

3SG.PFV=say.TR
 ‘He/She told me’

UTT-1SG.EXCL.POSS

It occurs in exactly the same position as the Class II preposition *tnie* ‘ABL’, which also occurs in an adjunct after the utterance predicate *wsi* ‘ask.TR’.

(249) *a=wsi* *tnie*
 3SG.PFV=ask ABL
 ‘He asked her.’

Some of the Class I set share properties with other prepositions, which merits their being classed amongst a preposition group. Problematically for a neat grammar, they are also not a discrete class, only resembling prepositions instead of nouns too. But, they are also distinct from other nouns, formally, in that they can mark a nominal object for a variety of roles in an adjunct, but they also have more varied semantics. As it has already been mentioned, when functioning as the nominal subject of a clause, Class I prepositions with spatial semantics resemble other bound nouns with similar semantics (e.g *walo* ‘back/behind’ and *sidio* ‘back’). However, these common bound nouns do not express locations at a site: *sidio* ‘back’ does not express ‘at the back of’ an entity, unlike *walo* ‘back/behind’ which does entail locative semantics (see also 3.8.2 for other semantics of *waló*). Common bound nouns must be marked by a preposition in a locative phrase, unlike noun-like prepositions, and common bound nouns do not have the function of marking an object for semantics roles, as the following examples demonstrate.

In (250) the Class I preposition *lia-* has locative semantics and indicates the location at the sides of a person, specifically their neck, where the flower-necklace was hanging.

(250) *ngiek* *m-ka* *lia-m*
 flower 3SG.IPFV=hang side-2SG.POSS
 ‘Flowers are hanging around you (your neck).’

(251) *ti=war* ‘*papa*’ ***lia-r***
 2SG.FUT= call/shout.INT ‘*papa*’ side-3PL.POSS
 ‘You call them “papa”.’ (Lit: You call ‘papa’ to them). (jm-b16-32)

(252) *Tabah* *Cain* *a=tov~tov* *lia-n* *bwó*
old.person C 3SG.PFV=REDUP~talk.INTR side-CONST pig
nier, *sla-n* *bwó* *nier*
PL way-CONST pig PL
‘Elder Cain talked about pigs, the way (we have) with pigs.’

(253) *lia-n* *truk* *a=rvang*
 side truck 3SG.PFV=be.red
 ‘The sides of the truck are red.’

The table below shows all Class I, or ‘noun-like’ prepositions in Ske.

Table 2.28 Class I ‘noun-like’ Prepositions

Class I	Form	Function
	<i>sa</i>	after utterance predicates, marks NP as addressee.
	<i>vwo</i>	Locative meaning ‘over’. Non-locative meaning, after <i>krav</i> ‘look’ marks NP as Beneficiary: ‘look after s.o’.
	<i>lia</i>	Locative meaning ‘at the side’, glossed as ‘side’ as also indicates facet of an entity. In motion expressions marks object as for the role of Path. Non-locative/motion functions include: in utterance predicates, marks NP as subject of talk, or person named in predicate meaning ‘call someone by a name’ and marks NPs denoting month-names and ‘month’ <i>vwól</i> in temporal expressions. Can function as NP head meaning ‘sides.of/flanks.of’.
	<i>ra</i>	Locative meaning ‘on’. Non-locative meaning; after utterance predicates, can mark NP as subject of talk, can mark NP as language that is being spoken.
	<i>lo</i>	Locative meaning ‘in’. Can function as NP head meaning ‘insides.of’.
	<i>bie</i>	Locative meaning only: ‘near’ only mark human NPs (or human-like form: God, spirits).
	<i>mwavie</i>	Locative meaning only: ‘at.side.of’.
	<i>pasira</i>	Locative meaning only: ‘on.other.side.of’.
	<i>lalvie</i>	In motion expressions marks NP for Allative: motion towards. Also marks NP as beneficiary and functions as subordinating conjunction in purpose adverbial clauses.
	<i>waló</i>	Locative ‘at.the.back.of/behind’.

	<i>va</i>	Locative meaning ‘under.’
	<i>ve</i>	Marks NP for Reason.
	<i>vwa</i>	Locative, at the ‘lid/opening’ of an entity.

2.7.2 Class II Prepositions

Class II prepositions do not take possessive marking and their objects need not be overt. In (254) *iq* ‘2SG.IND’ or ‘you’ is optionally overt.

- (254) *a=hria tekis mni (iq)*
 3SG.PFV=send.TR text BEN 2SG.IND
 ‘He sent a text message to you.’

Class II prepositions are termed verb-like for two reasons. Firstly, like transitive verbs, their objects are optionally overt if recoverable from context. Secondly, in *mni* ‘COM’ or ‘BEN’, *tnie* ‘ABL’ and *ne* ‘INSTR’ it is possible to reconstruct in their forms the transitive clitic (and transitive form of many transitive verbs) =*ne*. Durie (1988) discusses this in relation to the grammaticalisation of verbs into ‘verbal prepositions’ and notes a similar pattern in Paama (Durie 1988: 2).

Table 2.29 Class II ‘verb-like’ Prepositions

Class II		
	<i>mni</i>	Marks NP with role of Comitative or Beneficiary
	<i>tnie</i>	Ablative preposition, marks NP as Source in motion expressions. After utterance predicate ‘ask’ marks NP as questionee.
	<i>povohe</i>	Locative meaning: ‘near’, can mark animate and inanimate NPs.
	<i>ne</i>	Marks NP as instrument or Local noun as Goal.

2.7.3 Class III Prepositions

Class III prepositions all have locative semantics. Their object must be overt. *La* and *lal* are both glossed as ‘at’. These two forms collocate with certain nouns and express non-specific locative semantics; ‘at’ a place without it being clear if that is inside or at the side of, for example. Their semantics and distribution is described in more detail in Chapter 3.5. Class III prepositions are termed Locatives as all their number express locational semantics only, neither are they specific, like some of the Class I prepositions, in expressing a facet of an entity.

- (255) *be* *m=du* *la* *zeh*
 shark 3SG.IPFV=exist at sea
 ‘Sharks are/live in the sea.’

- (256) **be* *m=du* *la* Ø
 shark 3SG.IPFV=exist at

Table 2.30 Class III ‘Locatives’ Prepositions

Class III		
	<i>lal</i>	Locative ‘at’
	<i>la</i>	Locative ‘at’
	<i>ken</i>	Locative meaning, only marks human NP, ‘at.the.home.of’
	<i>ze</i>	Locative ‘origin/denizen.of’ or marks Local noun as Source

This summarises the varied forms classed as prepositons in Ske. The semantics and distribution of all the forms is discussed in more detail in Chapter 3.5.

2.8 Summary

This chapter has presented the phonology and morphology as well as the major word classes of Ske. We have also analysed word order of Ske at the level of the clause and the phrase, from a typological perspective. The following chapters are now dedicated to the research focus of spatial expression in Ske.

Chapter 3

Introduction to Spatial Language in Ske:

Angular and Non-angular Reference

3.1 Introduction

Everyday spatial language in Ske involves use of a number of different lexical and grammatical strategies. These strategies include a set of locative predicates and an existential verb which are obligatory in static spatial expressions. Other strategies are: locational nouns, including placenames and landmarks; geocentric terms; relational expressions; spatial demonstratives which encode parameters of distance from the speaker and proximity to an addressee; prepositions; three deictic motion verbs which function as directionals and may also code direction away from or towards a deictic centre; and a number of verb combinations (which occur as SVCs or V1+adverb where a locative predicate is V1) which express geometric configurations between Figure and Ground or may indicate asymmetries of the Figure.

Spatial language is used to express direction and location or endpoints of motion in different scales of space (Chapter 6) but the mechanisms for referencing space in all scales fall into one of two categories: they are arrived at by calculating either angular or non-angular spatial relations.

This chapter will analyse the forms and various functions of linguistic strategies available to Ske speakers to express non-angular and angular spatial events. Firstly, we define the terms Figure and Ground, which are ubiquitous in functional descriptions of spatial expression. We then introduce the basic forms of locative descriptions in Ske.

3.2 Definition of terms and the structure of locative descriptions in Ske

The terms Figure and Ground originate from Gestalt Psychology theory, formulated by the Berlin School. In contrast to a Behaviourist approach of understanding cognitive processes as individual elements, Gestalt theory sought out the organizing principles underlying them (Smith 1988). In linguistics, the terms Figure and Ground (Talmy 1985,

2000, 2007) are used to isolate the semantic elements of an event. Traditionally, Figure (F) and Ground (G) are distinguished in descriptions of static and motion locations where the Figure is the ‘moving or conceptually movable object whose path or site is at issue’ and the Ground is ‘the object with respect to which it is located’ (Talmy 2007: 70). In the sentences below, one a static expression and one a motion expression, F and G are identified as follows:

(a) *The cat sat on the mat* cat=F mat=G

(b) *The cat walked onto the mat* cat=F mat=G

In each sentence the cat is the conceptually movable object, i.e. the Figure, as its site in (a) and its path in (b) is at issue. The mat is the Ground, as the cat is located with respect to it in each case.

Locative descriptions in Ske typically involve three elements: firstly, a noun phrase containing the nominal expression which refers to the Figure object; secondly, a locative predicate (which describes the support relationship involved to maintain the Figure in position or specifies a physical characteristic or number of Figures, (see Chapter 4) and, thirdly, a nominal phrase or prepositional phrase which contains the nominal expression which refers to the Ground object. Locative descriptions where the Ground object expression is contained in a prepositional phrase (1) and in a noun phrase where a bound relational noun¹ is the head in (2) and where a locational noun is the head in (3) are shown below.

(1)	[NP Figure]	LocPRED	[PP	[NP Ground]]
	<i>dahe-n</i>	<i>m=do</i>	<i>lal</i>	<i>im</i>
	mother-3SG.POSS	3GG.IPFV=sit	LOC	house
	‘His mother is in the house.’ (2008-11-12-00072au-ek)			

¹ Bound relational nouns are also classed as ‘noun-like’ prepositions, or Class I prepositions. They are a subclass of bound nouns in Ske, but, in cross-linguistic analysis, have formal and semantic characteristics of prepositions. See Chapter 2.7 for a discussion of their classification and section 5 of this chapter. From hereon we refer to them primarily as nouns, taking the lead from their forms in Ske. However, for ease, the three forms described under prepositions in Chapter 2 are referred to as such when their group status is relevant.

- (2) **[NP Figure]** **LocPRED** **[NP** **[NP Ground]]**
sungsung *m=pet* *lia-n* *gilgilkor*
umbrella/leaf 3SG.IPFV=stand side-CONST bamboo.wall
‘The umbrella is standing against (at its side) the wall.’
(2008-11-12-00047au-ek)

- (3) **[NP Figure]** **[LocPRED]** **[NP Ground]**
srek *m=du* *basiak*
field 3SG.IPFV=exist up
‘The airport is (in the) south.’(pt-b8-28)

The example in (2) is the form of the Basic Locative Construction (BLC) in Ske, the typical answer to the question ‘Where is X?’ (Levinson & Wilkins 2000). Issues regarding the BLC will be discussed below. When a locative predicate and the Figure object (or subject pronoun indicating the Figure) occur alone without a phrase containing a Ground object, then the clause has a presentative function as in (4).

- (4) *ze* *bwaudia* *m=pet* *ae* *bsiel* *m=do*
ART tree 3SG.IPFV=stand CONJ bird 3SG.IPFV=sit
ra-n
on-3SG.POSS
‘There’s a tree and a bird is sitting on it.’ (2009-04-24-00437au-pt)

The locative predicate may occur in a complex predicate as V1 in an SVC or as the head in a verb+adverb combination without a phrase containing the Ground. The semantics expressed by these complex predicates is of the nature of the configuration between Figure and Ground or of the precise position or orientation of the Figure. In (5) an SVC expresses the position of the curled up snake on the stone and in the verb+adverb combination in (6) the configuration of the bottle, lying on the table at 90 degrees to the table’s long axis, is expressed.

- (5) *ze* *vet* *a=we* *ae* *brasok*
 ART stone 3SG.PFV=lie CONJ snake
 a=we *dli* *ra-n*
 3SG.PFV=lie go.round on-3SG.POSS
 ‘There’s a stone and a snake lay curled up on it.’ (2009-05-08-00514au-mmhm)
- (6) *kzo-n* *ri* *a=we* *pwolbwol* *ra-n* *bletpav*
 container-CONST water 3SG.PFV=lie crossed on-CONST table
 ‘The water bottle is lying crossways on the table.’ (2008-12-01-0017au-cw)

In angular spatial expressions, a perspective from a reference point is taken to locate the Figure (Levinson 1996b). The reference point can be internal to the Figure-Ground array, or external to it, such as an angle from the perspective of a speech act participant (SAP). In (7) the perspective is speaker-anchored: the demonstrative *dae* indicates a location distant from the speaker. Directionals and demonstratives in Ske are anchored to an SAP and express locations with respect to the speaker or addressee. Speaker-anchored descriptions are considered as constituting a distinct FoR strategy (see Chapter 5).

- (7) *im* *nier* *be= du* *en=dae*
 house PL 3PL.IPFV=exist place=DIST
 ‘There are lots of houses there/in that place.’

Alternatively, the perspective taken can be from within the array. Locating the Figure with respect to a facet of the Ground in relational phrases such as ‘behind’ or ‘on its left’ are examples of this strategy. In (8) the man is located behind the pigs.

- (8) *bwó* *aru* *ara=trah* *ae* *azó* *a=pet*
 pig two 2DU.PFV=pass CONJ man 3SG.PFV=stand
zekna-r
 behind.CONST-3PL.POSS
 ‘Two pigs passed and the man stood behind them (at their backs)’.
 (2009-05-01-00463au-cwrb)

The rest of the chapter is now split into two parts with Part One examining language used to express non-angular spatial events and Part Two focussing on the language involved in angular spatial descriptions. Notably absent in this chapter is any in-depth analysis of locative predicates or geocentric terms as they are examined in detail in Chapters 4 and 6 respectively.

In sections 3.3 to 3.5 in Part One of this chapter, linguistic resources used to express topological relations are presented. In section 3.3 the Ske BLC is established. We outline the spatial events which are coded by the BLC and analyse where and why alternative constructions are used, as well as describing them formally. Locative predicates are presented in 3.4 In 3.5, the near obligatory elements of topological descriptions, bound relational nouns and other forms which express locations in the Ground phrase are described. In 3.6 SVCs and verb+adverb combinations whose semantics express geometric configurations and posture, such as the examples given above in (5) and (6), are described.

In Part Two, linguistic resources available to Ske speakers to express angular spatial events are focussed on. In 3.7 the forms and various functions of spatial demonstratives in discourse are examined. Relational terms expressing locations which are found in angular spatial referencing are introduced in 3.8 and in 3.9 the semantics of the deictic motion verbs as well as their function as directionals and as aspectual operators are examined.

PART I

3.3 Topology, Methodology and the Ske BLC

Topological relations are spatial configurations such as containment, contact, proximity, and distance (Piaget & Inhelder 1956). For cross-linguistic study of the constructions used to express topological relations Levinson & Wilkins (2006: 15) suggest that ‘functional equivalents’ are compared; that is, the answers found in response to a *Where*-question e.g. ‘where is X (the Figure)?’ are analysed to give the form of the ‘Basic Locative Construction’.

‘Since all languages appear to have *Where*-questions, we can use this as the functional frame: we will call the predominant construction that occurs in response to a *Where*-question [...] the basic locative construction.’ (Levinson & Wilkins 2006: 15)

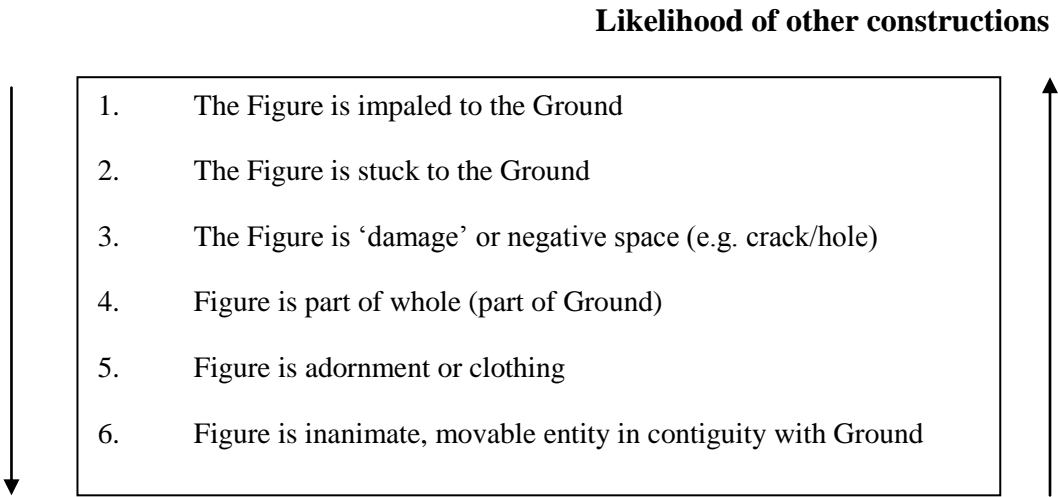
Languages may of course employ a number of strategies to express topological relations, therefore, in order to identify the basic construction, criteria to identify what constitutes the basic form are required. These criteria firstly pivot on isolating the colloquial form of the response and secondly, on evaluating the type of scene it describes. With respect to the first of these, Levinson and Wilkins note:

‘Locative descriptions, of course, occur outside the *Where*-question context, as in a guide book description of the kind *the cathedral stands in the heart of the old city, overlooking the Rhine*. Notice that such a sentence would be odd indeed as an answer to a *Where*-question, which is more likely to be something of the kind *it’s in the central square*’. (Levinson & Wilkins 2006: 15).

Regarding the second criterion, the BLC has been found not to be used in response to all topological *Where*-questions. Furthermore, the extent of its use differs across languages: even a colloquial response to certain ‘scenes’ may not reflect the BLC of that language. Levinson & Wilkins (2006) propose a hierarchy of spatial events for which the BLC is more and less likely to be used. These range from the prototypical scene of a moveable

object on a surface (e.g. cup on a table) to a crack in a vase or an arrow through an apple (see Figure 3.1). Where English may use its BLC (be+preposition) across these scenes, other languages may employ other means including resultative-type constructions for scenes further away from the prototypical scene.

The BLC is therefore the colloquial response to a *Where*-question describing, minimally, the prototypical locational scene. Regarding the methodology used for the investigation into the form of the BLC in Ske, the initial stimulus was the ‘BowPed Questionnaire’ (henceforth BowPed) also known as ‘Topological Relations Picture Series’ (TPRS) developed by Melissa Bowerman and Eric Pederson (1993) for the Max Planck Institute at Nijmegen (MPI). Extra Support and Containment picture sets also developed as part MPI project were used in addition to the BowPed scenes. A number of relational nouns and prepositions found in Ske were not elicited when using these stimuli. This was due to the lack of pictures depicting scenes where an entity was in proximity to a human Ground object. Evidence from elicited material was checked and developed by observing natural language in use.



Greater likelihood of BLC

Figure 3.1 BLC Hierarchy (Levinson & Wilkins 2006: 3)

The prototypical scene of a cup on a table is expressed in Ske using the components shown in (2) above and (9) below, these are: a nominal expression referring to the

Figure, a locative predicate and lastly an NP which contains the nominal expression referring to the Ground and a relational noun. A possessive pronoun suffix attaches to the relational noun to indicate the nominal expression referring to the Ground if it is not overtly expressed. If the Ground nominal is overt, a construct suffix, as below, attaches to the relational noun instead. The prototypical cup-on-table-scene response in Ske is shown in (9).

- (9) **LocPRED** **[NP** **[NP]]**
 lah *m=do* *ra-n* *bletpav*
 cup 3SG.IPFV=sit on-CONST table
 ‘The cup is on the table.’

The hierarchy presented above is formulated on parameters of attachment and contiguity and containment, whereby the greater the degree of attachment the less likely a language is to use its BLC. Similarly, as contact and containment² diminishes, the less likely it is for the construction to be used. Whilst the hierarchy has proved ‘reasonably robust [...] now seems more revealing to view the BLC Hierarchy as an emergent generalization over a complex multi-dimensional semantic space’ (Levinson & Wilkins 2006: 515). Indeed, findings from this study are that the hierarchy is not strictly linear; some scenes higher up the hierarchy may be expressed by the Ske BLC whereas others lower down may not.

The Ske BLC is used for all events at the bottom of the hierarchy in Figure 3.1 where a moveable Figure is in contiguity with the Ground and therefore involves the lowest degree of attachment. This includes containment scenes, such as rice in a cup or ‘tighter fit’³ scenes, including those when a Figure is inserted in the Ground, such as a cigarette in a mouth (10).

² The scenes depicted in the BowPed questionnaire and developed further in the extra Containment picture set, depict total and partial containment to no containment events in order to investigate where speakers delineate containment scenes from non-containment scenes. An apple in the base of a high-sided bowl, to a spoon protruding out the top of a bowl, to spilling-out contents of a bowl are among the types of scenes depicted on the containment spectrum.

³ Korean is among the languages which distinguish between loose-fit and tight-fit containment scenes (Levinson & Wilkins 2006).

- (10) *sonbienab m=pet lalvwa-n azó*
 cigarette 3SG.IPFV=stand mouth-CONST man
 ‘The cigarette is in the man/woman’s mouth.’

The BLC was frequently employed when there was a high degree of attachment between Figure and Ground such as when the Figure is stuck or otherwise attached to the Ground. This was found when the Figure and Ground were both inanimate (11) but also when the Figure or Ground was animate: non-human Figure (12) and human, body-part Ground (13).

- (11) *mrek m=ka va-n rezna-n*
 apple 3SG.IPFV=hang under-CONST branch.ASSOC-CONST
 ‘The apple is under the tree-branch.’

- (12) *tabariah m=ka lia-n wariah na-n im*
 spider 3SG.IPFV=hang side-CONST rafter ASSOC-CONST house
 ‘The spider is on the house rafters.’

- (13) *bilzi na-n malvwoh m=du*
 cover ASSOC-CONST wound 3SG.IPFV=exist
lia-n sihlie-n
 side-CONST leg-3SG.POSS
 ‘The plaster is on his/her leg.’

Further along the scale, the BLC may or may not be used. Generally, an alternative construction is used for scenes describing where the Figure is clothing or adornment, involving the verb *kro* meaning ‘block’ (such as when a house impedes the wind or a cloud blocks the sun) but also used to mean ‘wear’ (14). However, the BLC was used to describe the location of the flower-necklace adornments, given in celebrations and ceremonies, worn around a person’s neck (15).

- (14) **ALTERNATIVE CONSTRUCTION**
- | | | | |
|---------------|--------------------|-------------|-----------------|
| <i>ze=azó</i> | <i>mwe=kro</i> | <i>aqul</i> | <i>amwomwol</i> |
| ART=man | 3SG.IPFV=wear.TR | hook | round thing |
| <i>lia-n</i> | <i>baruhngia-n</i> | | |
| side-CONST | finger | | |
- ‘A man is wearing a ring.’

- (15) **BLC**
- | | | |
|--------------|---------------|---------------|
| <i>ngiek</i> | <i>m=ka</i> | <i>lia-n</i> |
| flowers | 3SG.IPFV=hang | side-3SG.POSS |
- ‘Flowers are around him (his neck).’

Expressions which locate part of an object in relation to its whole often take the form of existential or presentative constructions and do not include a Ground phrase, as shown in (16).

- (16)
- | | | |
|----------------|---------------------|----------------|
| <i>watno-n</i> | <i>tang~tang-an</i> | <i>m=du</i> |
| place-3SG.POSS | REDUP~grip-NOMLZ | 3SG.IPFV=exist |
- ‘It has a holding-on place (handle).’

Scenes higher on the BLC prompt alternative constructions. These may be resultative constructions or constructions involving a transitive predicate and an agentive subject. For example, damage and negative space are expressed using the first type of alternative construction (17).

- (17)
- | | |
|-----------|-------------------|
| <i>ul</i> | <i>a=mser</i> |
| cloth | 3SG.PFV=tear.INTR |
- ‘The cloth is torn.’

Although attachment scenes may be expressed using the Ske BLC, in scenes where it is implicitly understood that a greater degree of action by an agent is required to produce a high level of attachment between Figure and Ground, such as where paper is impaled on

spike or an arrow has pierced an apple, the second type of alternative construction is used, as in (18).

- (18) *wi* *a=sektre* *lo-n* *mrek*
 arrow 3SG=pierce.TR inside-CONST apple
 ‘An arrow has pierced the apple.’

It is important to note that in the alternative construction like the one in (18) above, where a non-locative predicate is involved and where the noun referring to the Ground is in a locative adjunct, a relational noun still occurs and precedes the Ground nominal.

We turn now to consider the degree of contact between Figure and Ground. The scenes described above where the cup is on the table (9), the cigarette is in the mouth (10) the apple is on the branch (11), the spider is on the rafters (12) and the plaster is on the leg (13) all depict configurations where there is a high degree of contact between Figure and Ground in addition to a low to moderate degree of attachment. When there is no contact between Figure and Ground, the locative phrase tends to be headed by a locative such as one of the forms are classed as prepositions, or a locational relational noun (which does not in its possessed form⁴ express a facet of an entity) rather than a bound relational noun. Alternatively, a locative predicate in combination with another verb in an SVC or a spatial adverb in a V1+adverb complex construction may code the configuration between Figure and Ground. For example, non-contact configurations on the vertical axis (19, 20) and horizontal axis (21) are shown below.

⁴ Locational relational nouns (3.6.2) are *zek* ‘behind/after’ and *mwo* ‘infront/before’ as well as *mre* ‘up’ and *zvan* ‘down’. The first two forms do not inherently express a facet of an entity but can do so when participating in a genitive construction. *Mre* and *zvan* cannot express facets of entities and cannot participate in genitive constructions. Locational relational nouns are discussed in Part Two of this chapter as their bare forms occur in expressions of angular spatial relations.

(19) **LocPRED [NP]**

<i>ser</i>	<i>m=ka</i>	<i>mre</i>	<i>(ra-n</i>	<i>bletpav)</i> ⁵
lantern	3SG.IPFV	above	on-CONST	table

‘The lantern is over the table.’

(20)

	LocPRED	ADVERB	
<i>bni</i>	<i>a=zu</i>	<i>tonon=ne</i>	<i>téng</i>
cloud	3SG.IPFV=exist	straight=TR	hill
‘The cloud is over the hill.’			

(21)	LocPRED	[PP	[NP]]
	<i>azó</i>	<i>m=do</i>	<i>povohe ab</i>
	man	3SG.IPFV=sit	near fire
	'The man is near the fire.'		

Note that configurations where the Ground is in a doorway, under a table or an upturned bowl, are coded as containment events and occur with the relational noun *va* ‘under’.

(22) *a=sior* *ra-n* *bwó* ***va-n*** ***mzav***
 3SG.PFV=give.speech.INTR on-CONST pig under-CONST door
na-n *mel*
 ASSOC-CONST nakamal
 ‘He give the bride price speech in the doorway of the nakamal⁶.’

One exception to the analysis that relational nouns are not used in expressions of contiguous spatial relations is *bie* which expresses proximity, but only when the Ground

⁵ Recall that *mre* ‘up’ and *zvan* ‘down’ are locational relational nouns and express a position up or down in relation to an entity, but they cannot participate in a genitive construction to express a facet of an entity. If the nominal expression referring to the Ground is overt after the locational relational noun, it must appear in an NP with a bound relational noun. See also footnote 4 above.

⁶ The nakamal is the ‘men’s meeting house’ found in most villages in Vanuatu. Mostly they are for men only and are buildings where kava is made and drunk, but they are also used as spaces for village meetings and are then open to the whole community.

object is animate. It thus has restricted use. Another is *vwo* ‘above’ which codes non-contiguous vertical relations but was offered by none of the consultants for the BowPed Questionnaire. *Vwo* ‘over/above’ only occurs once in the corpus to code this kind of topological relation.⁷

The Ske BLC is used to express the types of scenes illustrated in the Figure below; space is ‘cut’ along the lines coloured red and blue. The scenes between the two lines in Figure 3.2 are those where the BLC is used. Below the red line, a predicate other than a locative predicate is used, and above the blue line, a form such as a Class II or III preposition, or locational relational noun, rather than a bound relational noun, is found in the adjunct containing the Ground phrase.

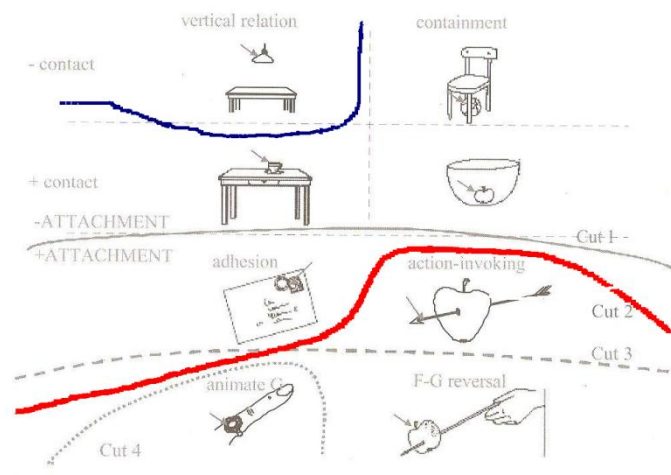


Figure 3.2 Similar Space for Topological Notions in Ske
(adapted from Levinson & Wilkins 2006: 517)

The BLC is therefore not used to express vertical non-contact relations and here it is the bound relational noun which is replaced by another form. Neither is the BLC used for action-invoking scenes (apple pierced by arrow); scenes where there is a reversal of Figure and Ground (stick through apple); and it tends not to be used to describe clothes or adornments on an animate Ground (ring on finger), and it is here a non-locative predicate is used. Figure 3.2 is adapted from Levinson & Wilkins (2006) showing ‘cuts’ made by other languages. Ske in fact makes a similar cut to Yucatec Maya, along ‘cut 2’.

⁷ *Vwo* ‘over’ usually occurs only with the predicate *krav* ‘look’ with the meaning ‘look after someone’. See also bound relational nouns and the prepositions shown in Table 2.2.8 in Chapter 2.7.

Locative predicates are presented below and the semantics they express are analysed in depth in Chapter 4. The locative forms found in the Ground phrase, that is, the bound relational nouns and alternative forms found here, which are prepositions or other forms, are discussed together in section 3.5.

3.4 Locative Predicates

There are seven locative predicates in Ske which may express support relations between the Figure and Ground, a neutral support relationship, or may indicate number or a physical characteristic of the entity, i.e. being liquid. The locative predicate set in Ske consists of an existential verb, verbs typically referred to as posturals and translated as ‘sit’, ‘stand’, ‘lie’ and ‘hang’ in addition to two further forms. They are presented in Table 3.1 below.

Table 3.1 Locative Predicates

Locative Predicate	Gloss
<i>du</i>	‘exist’ or ‘be.located’
<i>pet</i>	‘stand’
<i>do</i>	‘sit’
<i>we</i>	‘lie’
<i>ka</i>	‘hang’
<i>sok</i>	‘be.grouped’ (inanimate only)
<i>sol</i>	‘pool’ (liquid only)

Analysis of the role of postural verbs in static location expressions is underrepresented in the literature on space (Levinson & Wilkins 2006). For languages which have them, posturals or locative verbs typically imply characteristics of the Figure, such as its dimensions, rather than encoding any configurational information involving the Ground. In Ske, locative predicates predominantly code support relationships between Figure and Ground.

3.4.1 Corresponding Transitive Verbs

Except for the existential verb, locative verbs have a set of corresponding transitive verbs⁸ summarized in Table 3.2. That these correspondences exist is cited as evidence of the semantic parameters of the positional verbs; the fact that we should recognise a distinction between them is ‘non trivial [since] there is reason to think that the categorization that these verbs impose has cognitive consequences’ (Ameka & Levinson 2007: 848).

Table 3.2 Locative Predicates and Corresponding Transitive Verbs

Locative verb	Gloss	Causative verb	Gloss
<i>sok</i>	‘be.grouped’	<i>subrene</i>	‘place.many’
<i>do</i>	‘sit’	<i>kitne</i>	‘sit’
<i>pet</i>	‘stand’	<i>kitne/ wli</i>	‘stand’ or ‘insert’
<i>we</i>	‘lie’	<i>lngi</i>	‘lie’
<i>ka</i>	‘hang’	<i>tene</i>	‘hang’
<i>sol</i>	‘pool’	<i>tenglivne</i>	‘pour’

Towers, such as the land-diving tower and telephone masts, which were erected by Digicel phone company under a period of rapid expansion during my fieldwork, are described as standing with *pet* ‘stand’ in static location expressions. In causative constructions, the corresponding causative verb *kitne* to ‘stand’ or ‘place in standing position’ is used as in (23).

⁸ However, there are other means of expressing caused positions with *ba* ‘go’ where the subject is the agent and the locative predicate occurs in a shared argument SVC (here, where the object of V1 is the subject of the V2 locative predicate) :

<i>ni=va</i>	<i>no-m</i>	<i>mobaél fon</i>	<i>a=we</i>	<i>porsek</i>
1SG.EXCL.IPFV=go	GEN.CL-2SG.POSS	mobile phone	3SG.IPFV=lie	wrong.way

‘I laid your mobile phone the wrong way round’.

- (23) *azó na-n Digicel a=kitne taoa*
 man ASSOC-CONST D 3SG.PFV=stand=TR tower
ra-n ót asa
 on-CONST place sacred
 ‘A man from Digicel erected a telephone mast in a sacred place.’

The table shows how the corresponding verb for ‘sit’ and ‘stand’ is the same, indicating that the configurations they describe, which involves support from below (see Chapter 4), is conceptually linked at least in terms of putting in to position. Once in position, clearly the configurations are in opposition.

In (24) the speaker, Naomi, instructs her daughter to lay two leaves on the floor which can then be filled with food, folded up and carried home to be eaten later. The corresponding transitive verb *lngi* ‘place in lying position’, here realized in its intransitive form *ling*, is modified by a spatial adverb to specify that the leaves should lay across each other, not parallel to each other.

- (24) *ti=ling pwolbwol=ne*
 2SG.FUT=put.INTR cross=TR
 ‘Lie (them) across each other!’

As *sok* ‘be.grouped’ is non-specific regarding the position or location of the Figure, the corresponding causative verb *subrene* ‘place many’ is similarly non-specific in configurational semantics. The objects may be positioned in any configuration expressed by the semantically richer verbs, the important factor is that more than one entity is acted on. *Subrene* can function as the sole predicate in a clause but in (25) occurs in an SVC with *kavkó* ‘gather’ in a request to remove a large number of coconuts from the open back of a truck to the ground alongside.

- (25) *dria=kavkó* *subrene* *ól* *tnie* *ót*
2DU.FUT=gather.TR place.many.TR coconut ALL place
ra-n *sihlientagaviet*
on-CONST truck
‘Gather and move the coconuts from off the truck!’
(Lit: ‘gather and place’ them.)

For most of the locative predicates then, there is a corresponding transitive verb which indicates not only that there is a conceptual link between the configuration and the act of causing an entity to appear in that configuration, but also that the configurations themselves are conceptually distinct.

3.5 Locative forms in the Ground phrase

As discussed in Chapter 2, Ske has three classes of preposition, so-called as they mark a noun or nominal expression (optionally so, for Class II prepositions). Many of these mark the noun for location. A bound relational⁹ noun, which is also classed as a Class I preposition, is the head of the Ground phrase in the BLC in Ske and has locational semantics. Typically, when there is no contact between Figure and Ground, an alternative preposition, or other locative form, such as an angular reference involving a locational relational noun, occurs in the Ground phrase instead of the bound relational noun.

There are a large number of bound relational nouns in Ske of which only four were used by consultants for the BowPed questionnaire. The table below summarises those forms, and the topological notions they express are written alongside the glosses. The table shows that the semantic primitives ON, IN, UNDER (expressions of the topological notions ‘containment’ and ‘contiguity’) are coded by bound relational nouns

⁹ Bound relational nouns express facets of objects. Some of them code asymmetries of the object, such as ‘front’ or ‘back’ and thus in Frames of Reference theory (see Chapter 5) are also analysed as taking part in angular spatial descriptions within the intrinsic or object-centred FoR. Bound relational nouns which do not express asymmetries, such as ‘side’ may also participate in an object-centred FoR but in a composite expression involving a deictic form. This is discussed in Chapter 5. Bound relational nouns are discussed in this section on non-angular spatial expression, although they can participate in both angular and non-angular descriptions, as the most common of these nouns principally function as spatial relators in non-angular spatial expressions.

in Ske. Notably absent are the topological notions of ‘proximity’¹⁰ and ‘distance’ which tend not to be expressed by bound relational nouns. That all topological notions are not coded by these bound relational nouns in Ske is contradictory to early theories of spatial expression which assumed that such notions would consistently be coded in the same category of spatial relators in a language, typically analysed as adpositions in many languages (Jackendoff 1983 in Levinson & Meira 2003). However, cross-linguistic analysis of methods of encoding topological notions has found that languages do not code them uniformly (Levinson & Meira 2003). Evidence from Ske supports these findings.

Table 3.3 Bound Relational Nouns which Express Contact and Containment in the Ske BLC (as found in the BowPed questionnaire results)

Form	Gloss	Topological Notion Expressed		
<i>lia</i>	‘side’	contact	ON/ NEAR ¹¹	Figure and Ground have extended contact. Ground has inclined, vertical or horizontal surface. Codes Path semantics ‘along/via’ in motion expressions
<i>ra</i>	‘on’	contact	ON	Figure and Ground may have extended contact or not. Ground has inclined or horizontal surface. Contact with apex of 3D entity.
<i>va</i>	‘under’	containment	UNDER	Total or partial containment of Figure which is beneath 3D Ground. Contrasts with <i>lo</i> on vertical axis.
<i>lo</i>	‘inside’	containment	IN	Total and partial containment. Contrasts with <i>va</i> on vertical axis.

¹⁰ Excepting *bie*, as mentioned before, which has restricted use and means ‘proximity to animate entity’ only.

¹¹ Levinson & Meira (2003) note that ‘along’ could go into either the ON or NEAR category, having a meaning akin to both, but not constituting a universal category in its own right: ‘[o]ne can perhaps find such interstitial categories in the topological domain - English again may constitute a case, being arguably interstitial between the large ON category and a NEAR category. We think we simply have to recognize that such language specific categories just go beyond the theory, in the same way that an English non-basic color term like crimson or vermillion goes beyond basic color-term theory’ (Levinson & Meira 2003).

The bound relational nouns in the table above have rather general semantics; other bound relational nouns in the corpus have more specialised meanings¹², for example, *mwavie* ‘width/short edge’; *pasira* ‘other side /other half’; *mwari* ‘length/ long side’; and *waló* ‘behind/back’. Unlike bound relational nouns, bound nouns referring to body-part terms¹³ and part-whole relations cannot function as heads of phrases which are locative adjuncts. Compare (26, 27) below, where a bound noun denoting a body-part must be preceded by a bound relational noun with a more general meaning for the phrase to be grammatical, and similarly (28, 29) below, where the bound common noun denotes a part-whole relation and must also be preceded by a bound relational noun. We see in these examples, that the distribution of bound relational nouns is thus different to other bound nouns, and therefore that they can be categorised as different forms. It is clear too that they are functionally different to other nouns which express locations: their semantics imply a location at an object as well as, at times, a facet of an object. This is also an important factor in how they are discussed and defined.

- (26) *malvwoh* *m=we* *lia-n* *balse-n* *azó*
 wound 3SG.IPFV=lie side-CONST jaw-CONST man
 ‘The scar is on the man’s jaw.’

- (27) **malvwoh* *m=we* *balse-n* *azó*
 wound 3SG.IPFV=lie jaw-CONST man

- (28) *udia* *m=pet* *ra-n* *dumwie-n* *téng*
 wood 3SG.IPFV=stand on-CONST peak-CONST hill
 ‘The tree is on the peak of the hill.’

¹² The bound relational nouns with a more specific meaning are those which also sometimes appear in a locative phrase preceded by a bound relational noun with more generalised semantics. This is an indication they are less grammaticised than the general bound relational nouns but both are classed as Class I prepositions (Chapter 2.7).

¹³ Exceptions are *lalvwa* ‘mouth’, which is a fossilised compound comprising of the general locative form *la*, and *vwa* ‘opening’ and *lamza* ‘face’ which is similarly a compound involving *la* LOC and *mza* ‘eye’.

- (29) **udia* *m=pet* *dumwie-n* *téng*
 wood 3SG.IPFV=stand peak-CONST hill

Essentially, bound relational nouns code facets of entities and have locative semantics, i.e. *ra*, glossed as ‘top’, may code a meaning more akin to ‘at the top of’, as well as ‘top of’ whereas *dumwie* ‘peak’ does not entail the locational sense of ‘at the peak of’. Some relational nouns code facets of entities which represent asymmetries of the entity (e.g. ‘back’ or ‘front’) and some code facets which are not, strictly speaking, asymmetries (e.g. ‘side’). Both are analysed as taking part in expressions which code topological relations, but also in angular spatial events where they function in the intrinsic or object-centred Frame of Reference (see Chapter 5). In other words, it could be said that prototypical topological expressions in Ske, those which are expressed using the BLC, are formally and conceptually similar to some expressions of angular spatial relations.¹⁴

Returning now to other locatives which head a Ground phrase in Ske to express topological relations, *povohe* ‘near’ codes proximity, and two other forms *lal* ‘at’ and *la* ‘at’ code non-specific locational information. *La* always occurs with bodies of water. In the examples below, a shark is in the water (30) and a ship is on the water (31), but the locative expression is identical.

- (30) *bé* *m=du* *la* *zeh*
 shark 3SG.IPFV=exist at sea
 ‘Sharks are/live in the sea.’

- (31) *waq* *m=we* *la* *zeh*
 ship 3SG.IPFV=lie at sea
 ‘The ship is at sea/on the sea.’

¹⁴ Descriptions of intrinsic frames of reference in languages are sometimes ‘lumped together’ with topological reference (Bohnenmeyer 2008). However in Ske, expressions of containment, contact and many attachment scenes are formally identical to intrinsic/object-centred reference and may be associated together, rather than lumped together, with good reason.

Prepositions *la* and *lal* express locations which are found in constructions where ‘the Figure is construed as being located at a place, rather than at an object’ i.e., ‘at the house’ rather than ‘on the house’¹⁵. When the Figure is construed as being ‘at an object’ the bound relational terms are used in Ske. When construed as being at a place, a Class III preposition (*la* or *lal*) marks the nominal Figure. For example, these locatives almost always occur in constructions with entities such as clouds, buildings and bodies of water, as shown in Table 3.4 below.

Table 3.4 Locatives with Examples of Collocating Nouns

<i>lal</i> +	<i>dieb</i>	‘dark bush’	<i>la</i> +	<i>ri</i>	‘water/ river’
	<i>ngian</i>	‘hand’		<i>zeh</i>	‘sea’
	<i>mel</i>	‘nakamal’			
	<i>bni</i>	‘cloud/ heaven’			
	<i>im</i>	‘house’			
	<i>msav</i>	‘clouds’			

Only *ngian* ‘hand’ and *ri* ‘water’ occur in the corpus in locative adjuncts with prepositions *la* or *lal* or a bound relational noun, where they then expresses a more specific meaning. The example in (32) is the typical way of expressing that an entity is in someone’s hand, however the exact configuration is unclear: the palm of the hand may be open or closed. Alternatively, as shown in (33) using *lo* ‘insides’, the person fingers are bent around the object and thus ‘contained’ within it.

- (32) *mwe=vsi* *lal* *ngian*
 3SG.IPFV=hold.TR LOC hand
 ‘He/she is holding the ball in the palm.’ (Support Picture 46))

¹⁵ This distinction is also found in Goemai, see Hellwig 2007: 896.

- (33) *mwe=vsɪ* *lo-n* *ngian*
 3SG.IPFV=hold.TR inside-CONST hand
 ‘He’s holding it in the hand/palm (with bent fingers).’

The prevalence of placenames in the Ske area which begin with *lal* or *la* such as *Lariavangvang* meaning ‘at the hotwater’ (the village is situated next to a hot spring) provides further evidence that these locatives code the situation of being ‘at a place’.

The sections above have established the Ske BLC and the events on the hierarchy it can and cannot express. Alternative constructions and when they are used have been outlined. It has also been underlined that bound relational nouns occur in topological relations involving contact, otherwise an alternative locative form tends to be used.

3.6 Verb Combinations Expressing Position and Geometric Configurations

Spatial descriptions of geometric configurations between Figure and Ground, or the internal posture of a Figure, are a type of non-angular spatial expression in Ske. An accompanying Ground phrase is optional. Often these expressions occur in discourse once the location of the Figure has been established. These configurational or postural expressions take the form of either an SVC where V1 is a locative predicate, or a locative predicate followed by an adverb. The forms are summarised in Table 3.5 below.

Table 3.5 Forms Used in Configurational and Positional Expressions with a Locative Predicate

Form	Lexical Category	Transitivity	Gloss	Verb combination
<i>dungsi</i>	Verb	Transitive	‘follow’	SVC
<i>tonon/e</i>	Verb	Intransitive/ Transitive	‘straight/direct’	SVC
<i>povrek/povrene</i>	Verb	Intransitive/ Transitive	‘heap’	SVC
<i>porsek/porsene</i>	Verb	Intransitive/ Transitive	‘right way’	SVC
<i>kmwo</i>	Adverb	Transitive	‘across’	V1+adverb
<i>kzúk</i>	Adverb	Intransitive	‘gather’	V1+adverb
<i>povoh</i>	Adverb	Intransitive	‘upright’	V1+adverb
<i>palil</i>	Adverb	Intransitive	‘wrong way’	V1+adverb
<i>pwolbwol</i>	Adverb	Intransitive	‘crossed’	V1+adverb

The table groups the items with respect to their form class. When combining with locative predicates, the verbs listed in the table form asymmetrical SVCs classed as Event-Argument SVCs (Aikhenvald & Dixon 2006: 18) and modify the V1 such that ‘the event or state denoted by one component is predicated on the entire situation referred to by an SVC’ (ibid). Although formally different, the verb and adverbs in Table 3.5 both provide manner specifications when they combine with either a locative predicate or with one of the transitive verbs which correspond to the configurations coded by locative predicates (section 3.4.1). According to Aikhenvald and Dixon (2006: 18) the similarity between the SVCs and the verb+adverb combinations found here is not unusual: ‘(s)emantically, event-argument SVCS are similar to constructions with manner adverbs. They often undergo changes [...] a modifying component in such SVCs may develop into an adverb.’ In fact, the manner adverbs listed here (and also see other adverbial forms in 2.6.6) may have valence (*kmwo*) and are therefore able to license an argument. Some reduplicate (*kzuk*, *kmwo*, *pwolbwol*) and thus show syntactic and morphological properties of verbs. It is likely that there has been category shift and that these adverbs were verbs in a former stage of the language but now cannot function as predicates.

The semantics expressed by the forms listed in Table 3.5 are presented in turn below.

3.6.1 *kmwo* ‘across’, *pwolbwol* ‘cross’ and *dungsi* ‘follow’, *tonon* ‘straight’

Kmwo ‘across’ and *pwolbwol* ‘crossed’, along with *dungsi* ‘follow/following’ and *tonon* ‘straight/correct’ code opposing configurations between F and G where the main or long axis of F either crosses or is parallel to the main or long axis of G, as in the diagrams below. *Kmwo* and *pwolbwol* code configurations involving crossed axes as in Figure 3.3 and *dungsi* and *tonon* express configurations where the axes are parallel as in Figure 3.4.

Figure 3.3 Long Axes of Figure (dotted line) and Ground (rectangle) are Crossed

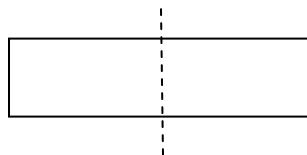
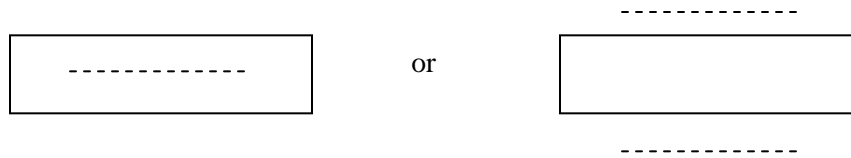
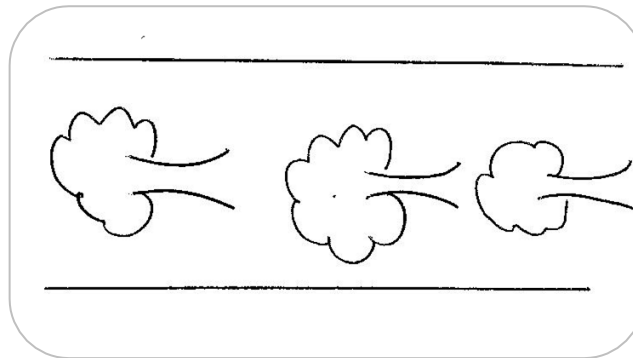


Figure 3.4 Long Axes of Figure and Ground are Parallel (overlaid or abstracted)



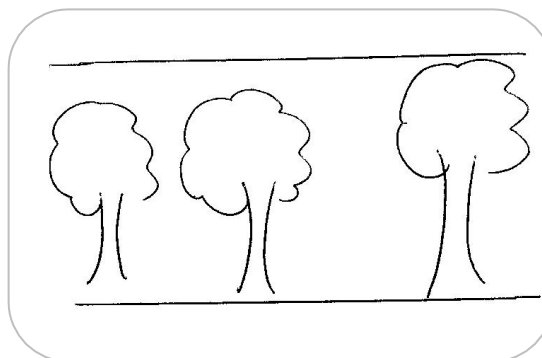
When the runway at Lonorore airport was extended, large numbers of trees were felled, providing a longer flight-path to allow larger planes to land and take off. Some were lying parallel to the road (34) and I elicited the second example for comparison. In (34) and (35) the long straight road running along the coastline is the Ground and the trees lie alongside it or across it.

Figure 3.5 Trees Lying Parallel to Road: *dungsi*



- (34) *bwaudia* *ave=sok* *dungsi* *sal*
 tree 3PL.PFV=be.grouped follow road
 ‘The trees were lying parallel to the road.’

Figure 3.6 Trees Lying Across the Road: *kmwo*

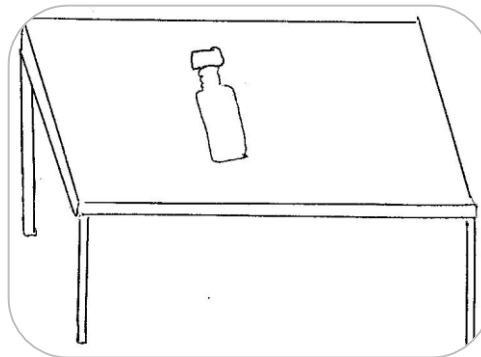


- (35) *ave=sok* *kmwo* *sal*
 3PL.PFV=be.grouped across road
 ‘They were lying across the road.’

In (36) and (37), illustrated in Figure 3.7 and Figure 3.8 respectively, I had placed my water bottle on the table in Chief Willy’s kitchen and he described its position, using *tonon* and *pwolbwol* as opposites.

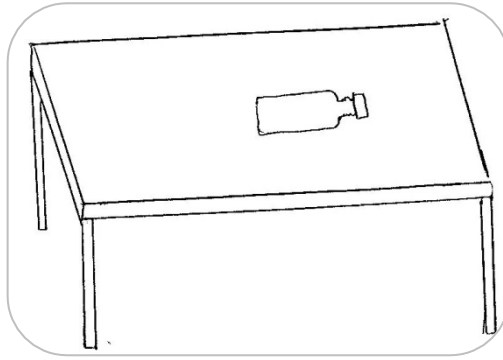
- (36) *kzo-n* *ri* *a=we* *pwolbwol* *ra-n*
 container-CONST water 3SG.PFV=lie cross on-CONST
bletpav
 table
 ‘The water bottle is lying crossways on the table.’ (cw-b4-25)

Figure 3.7 Figure and Ground Long Axes are Crossed



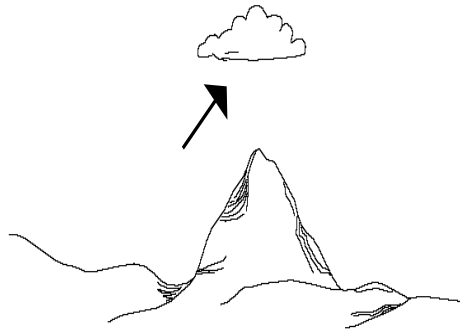
- (37) *kzo-n* *ri* *a=we* *tonon* *ra-n*
 container-CONST water 3SG.PFV=lie straight on-CONST
bletpav
 table
 ‘The water bottle is lying straight (parallel) on the table’.
 (2008-12-02-00119au-cw)

Figure 3.8 Figure and Ground Long Axes are Parallel



When expressing configurational information in SVCs, there is little difference in meaning between *tonon* ‘straight’ and *dungsi* ‘follow’¹⁶. In configurations expressed by both verbs, the Figure need not be located on the Ground, as it is in when the bottle is on the table. Also the axes of the Ground can be abstracted, as seen where the trees lie not along the road itself, but their major axes lie parallel to it. Other examples in the corpus show that *tonon* also has the sense of ‘straight’ or ‘directly’ above an entity, such as the BowPed Topological stimuli (MPI Field Manual 1993) where a cloud is located over a mountain (Figure 3.9) as described in example (20) above.

Figure 3.9 BowPed Topological Picture Series. Picture 36.



The same is so concerning *pwolbwol* ‘crossed’ and *kmwo* ‘across’: they appear to code the same configurations such that the axes of the Ground need not be abstracted, but can

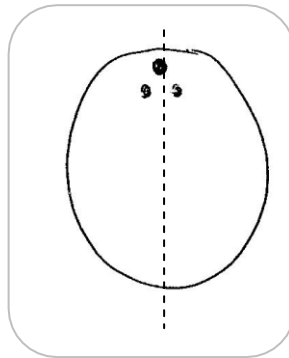
¹⁶ As main verbs, *dungsi* ‘follow’ and *tonon(e)* ‘straight(en)/arrange’ have very different meanings.

be. Syntactically there are differences with respect to transitivity of the forms. In causative constructions *pwolbwol* occurs in combination with verbs meaning ‘lay’ or ‘place’ and *kmwo* occurs with strongly agentive verbs with the meaning ‘cut’ or ‘break’.

For example, frequently observed use of *kmwo* ‘across’ was in relation to ways of cutting a coconut. A coconut can be opened by hitting with the blunt side of a machete blade or other blunt object, in which case *oh* ‘hit’ is used, or it can be split open with the sharp side of the blade, in which case *dale* ‘cut’ is used. With respect to the geometry of a coconut, it can either be opened along its long axis (from the eye of the coconut and down) or across its short axis, as shown in Figure 3.10 and Figure 3.11. Following the long axis, the adverb *pre* ‘lengthways’ (38, 39) is used and when cutting across the short axis *kmwo* ‘across’ (40, 41) is used.

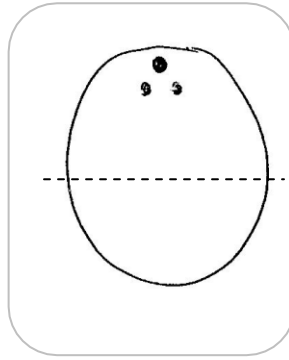
- | | | | | | |
|------|-------------------------------------|------------|------|-------------------------------------|------------|
| (38) | <i>ti=dal</i> | <i>pre</i> | (39) | <i>ti=óh</i> | <i>pre</i> |
| | 2SG.FUT=cut.INTR | lengthways | | 2SG.FUT=hit.INTR | lengthways |
| | ‘Cut it (so it breaks) lengthways.’ | | | ‘Hit it (so it breaks) lengthways.’ | |

Figure 3.10 Coconut Split Across Long Axis



- | | | | | | |
|------|---------------------------------|-------------|------|---------------------------------|-------------|
| (40) | <i>ti=dal</i> | <i>kmwo</i> | (41) | <i>ti=óh</i> | <i>kmwo</i> |
| | 2SG.FUT=cut.INTR | across | | 2SG.FUT=cut.INTR | across |
| | ‘Cut it (so it breaks) across.’ | | | ‘Hit it (so it breaks) across.’ | |
| | (pt:b11:4) | | | (pt:b11:4) | |

Figure 3.11 Coconut Split Across Short Axis



Pre ‘lengthways’ is not included in the list of configurational and postitional expressions because it does not occur in combination with locative predicates.

Pwolbwol is also found in the corpus modifying a nominal: *udia pwolbwol*, where *udia* means ‘wood’. This is the translation for the ‘cross’ in prayers and bible translations.

3.6.2 *povoh* ‘upright’

Povoh indicates that a Figure is in an upright position: its long axis is vertical and this position may not necessarily be its canonical position. It is often the case that a language which has postural verbs among its set of locative predicates would code this position with the ‘stand’ postural, however this is not necessarily the case in Ske (see *pet* Chapter 4.4.4).

In (42) below, a bush-knife or machete is propped up in the earth against a tree in non-canonical position. The earth and tree maintain the position of the knife against gravity. A complex construction involving the postural *pet* ‘stand’ and *povoh* ‘upright’ express its position.

- (42) *azio m=pet povoh lia-n bwa-n ih*
 knife 3SG.IPFV=stand upright against-CONST head-CONST banana
 ‘The knife is standing upright against the banana tree.’ (nm-b12-3)

Compare this with the examples below where *pet* ‘stand’ is not used to code this position. A book is described as lying (43) on the table or standing upright (44) with its long axis

vertical. When lying, the postural only, *we* ‘lie’, expresses the position, but when standing, it is the existential *du* ‘exist’ and *povoh* ‘upright’ which are used, not *pet* ‘stand’.

- (43) *robwet m=we ra-n bletpav*
 book 3SG.IPFV=lie on-CONST table
 ‘The book is lying on the table.’ (nm-b12-4)

- (44) *robwet m=du povoh ra-n bletpav*
 book 3SG.IPFV=exist upright on-CONST table
 ‘The book is upright on the table.’ (nm-b12-4)

Naomi, the consultant who described the above configurations, commented that usage of *pet* ‘stand’ when the book’s long axis was vertical was incorrect as a book has no legs. This is an interesting observation on the use of *pet* which is discussed in detail in Chapter 4. *Pet* is used when a Figure can easily maintain its upright posture, hence legs and trees with roots are said to stand. *Pet* is also used when the Figure is inserted in the Ground to maintain a posture; this posture could be vertical (as in the bushknife example above) but also horizontal or at an angle (a cigarette in a mouth). Potentially the consultant found the use of *pet* with the position of the book problematic as a book may have no satisfactory way of retaining an upright posture, depending on its thickness, but use of *pet* was necessary with the bushknife to clarify that the knife was indeed upright and leaning at an angle, which could have been the interpretation had *povoh* ‘upright’ not been used here. *Povoh* clarifies that the position of the Figure is upright, since speakers’ selection of *pet* is restricted on the basis of how an entity maintains its posture and also, importantly, *pet* does not necessarily entail an upright position, where the long axis of a Figure is vertical.

Povoh does not indicate an asymmetry of the Figure with respect to its function: only the orientation of the long axis in a vertical position, i.e. upright versus lying down rather than a top versus a bottom asymmetry. In (45) *povoh* appears in a causative construction.

The mat was rolled up on the floor and the speaker asked that it be turned and placed so that it stood upright.

- (45) *ti=glia* *ti=kelsene* *manqot?* ***ti=kit*** ***povoh=ne***
 2SG.FUT=know 2SG.FUT=turn.TR mat? 2SG.FUT=place upright=TR
 ‘Can you turn the mat? Place it upright.’ (nm-b12-5)

The mat has no correct side that should be used as the base on which to stand it, as it can be argued a knife or book does (there is clear wrong-way up for a book when the writing is upside down). This example therefore shows that *povoh* indicates the orientation of the long vertical axis of the Figure and not an asymmetry between a base and top of a Figure and which way round it should be placed.

It is again worth mentioning here that *kelsene* ‘turn.TR’ occurred frequently in causative constructions similar to above, where it could appear in place of *povoh*. However *kelsene* is non-specific with respect to a particular configuration between Figure and Ground or the orientation of the Figure’s axes. It only indicates that a Figure should be turned round or over from its current position and it is not included in this section.

3.6.3 *palil* ‘wrong way up’ and *porsek/porsene* ‘right way up’

The above forms code asymmetries of the Figure and indicate specifically that it has a top and base, unlike *povoh*, described above. The dimensions of the Figure are irrelevant: it can have a long vertical or horizontal axis. The relevant issue is its function and in which position it carries out this function. In (46) a table has been laid on the grass with its legs in the air:

- (46) *nqane* *sihlie-n* *aviet* *de=krav* *ba* *mré* *ae*
 if leg-3SG.POSS four 3SG.FUT go up CONJ
m=we ***palil*** *ra-n* *bevleh*
 3SG.IPFV=lie wrong.way on-CONST grass
 ‘If its four legs are facing up then it’s lying the wrong way up on the grass.’
 (nm-b12-4)

In the examples below the consultant is describing her actions as she places an open drink can with the opened lip down (47) towards the floor, or upwards (48) so no liquid can spill out.

- (47) *mwa=kit* *palil=ne*
 1SG.EXC.IPFV=place.INTR wrong.way=TR
 ‘I’m placing it the wrong way up.’ (i.e. with the lip down) (nm-b12-5)

- (48) *mwa=kit* *porsene*
 1SG.EXC.IPFV=place.INTR right.way.TR
 ‘I’m placing it the right way up.’ (i.e. with the lip up) (nm-b12-5)

Entities with inherent asymmetries which are tops and bottoms, such as tables, bottles, cups or plates, can occur with these terms.

3.6.4 *povrek/povrene* ‘heap’ and *kzuk* ‘gather’

Povrek/povrene and *kzuk* both describe configurations where multiple Figures are gathered together and thus occur in causative expressions in combination with *subrek/subrene* ‘place many objects’ rather than *kit/kitne* ‘place a single object’. In (49) Lessian was helping me unpack and arrange my belongings and thought it was best that I took everything out and placed all items on the floor to start off.

- (49) *ti=ksi~ksi* *no-m* *zakle*
 2SG.FUT=REDUP~take.out.TR CL.GEN-2SG.POSS thing
la=subrek *povrene*
 ES=place.many.INTR heap.TR
 ‘Take out your things and put them in a pile/in one place.’ (lt-b9-267)

Both forms can modify the locative predicate *sok* ‘be grouped’, used when more than one Figure is the subject, as in (50) where the speaker was talking about eggs that a chicken had laid. The forms can also occur with other locative predicates which do not specify number of Figures, illustrated here with the existential verb *du* in (51), although other verbs are also possible.

- (50) *be=sok* *povrek/kzuk*
 3PL.IPFV=be.grouped heap.INTR/ gather.INTR
 ‘They are all gathered in one place/in a heap.’ (cw-b9-157)
- (51) *ze mwu a=mlio, ave=du povrek*
 ART chicken 3SG.PFV=lay.egg 3PL.PFV=exist gather.INTR
 ‘A chicken laid some eggs, they were all in a heap/gathered in one place.’
 (pt-b11-16, using text *Frog where are you?*)

This final section of Part One has outlined the forms which can enhance basic locative expressions to code non-canonical and canonical positions, and express other characteristics and geometric configurations between Figure and Ground. In Part Two, linguistic resources for angular spatial referencing are discussed.

PART II

3.7 Demonstratives

Demonstratives in Ske can be used with spatial or temporal meaning and in discourse as anaphoric or cataphoric reference markers. Four forms are used for spatial reference; there are three speaker-anchored terms (two proximal and one distal) and another which expresses proximity to an addressee. The addressee-anchored form indicates a location close to the addressee from the perspective of the speaker. The speaker-anchored distal demonstratives can be used in all scales of space, the addressee-anchored demonstrative can be used in local-scale space and the speaker-anchored proximal demonstratives also only occur in local-scale descriptions. Demonstratives are typically accompanied by hand gesture or face-pointing to reduce ambiguity, however shared knowledge of space and distance distinctions coded by spatial demonstratives can be meaningfully used without gesture (see Chapter 5).

Formally, there are two types of demonstratives in Ske: demonstrative pronouns and demonstratives which determine an NP. The determiners are enclitics which attach to the right edge of an NP or relative clause.

3.7.1 Deictic Demonstrative Pronouns

Firstly, the demonstrative pronouns: deictic demonstrative pronouns function in a similar way to vocatives. The deictic demonstrative pronouns are summarized in Table 3.6 below.

Table 3.6 Deictic Demonstrative Pronouns

<i>nie</i>	‘this one’
<i>nied</i>	‘this one’ (possibly touching the object)
<i>diae</i>	‘that one’
<i>niam</i>	‘that one’ (by you)

This set of pronouns is used to draw the hearer’s attention to a specific entity when the referent, the topic, is visible to both speaker and addressee. For example, (52) was overheard in Jonas and Lessian’s store, when their son was behind the counter of the shop and he failed to identify the object the customer had requested earlier in the exchange. The customer then pointed and exclaimed:

- (52) ***niam!***
 PRON.PROX.ADDR
 ‘That one (by you)!‘

Other occasions where the deictic demonstrative pronouns are used is typified by the example below (53). In Lessian’s busy kitchen, she asked for a knife from the table. As there were two knives, the respondent asked Lessian to be more specific about which knife she meant: the one closer to her or the one closer to the respondent?

- (53) *kmwe=dorngi* *qa* *m=be?*
 2SG.IPFV=want.TR PRON 3SG.IPFV=COP
niam *e* ***nied?***
 PRON.PROX.ADDR or PRON.PROX1
 ‘Which one do you want? That one (by you) or this one?’

3.7.2 Demonstratives Clitics

The set of spatial demonstrative enclitics code the same distinctions as the pronominal demonstrative set. They consist of the following forms:

Table 3.7 Demonstrative Enclitics

Form	Gloss	Distance and Parameter expressed
= <i>ned</i>	=PROX1	proximal (speaker-anchored)
= <i>ne</i>	=PROX2	proximal (speaker-anchored)
= <i>dae</i>	=DISTAL	distal (speaker-anchored)
= <i>nam</i>	=PROX.ADDR	proximal (addressee-anchored)

Demonstratives clitics attach to the right edge of noun phrases and relative clauses (see Chapter 2.4.4).

There is no distance distinction between the two proximal demonstratives; both can be used to describe an entity close to the speaker. The speaker-anchored terms also have temporal deictic meanings and it is with these meanings that distinctions are made between the proximal forms¹⁷.

When used for spatial reference, demonstratives may mark an NP which refers to an animate or inanimate entity, such as a cup (54), a location or direction (55, 56), and also an event (57) and serve to specify its proximity to, or distance from, a speech act participant.

In (54) the demonstrative indicates a cup close to the addressee which the speaker desires:

¹⁷ There are two forms which have the rough meaning of ‘now’ in Ske, these are *nando*=**ne** ‘now’ and *nado*=**ned** ‘right now/from now/at this or that specific time’. The former has a continuous present meaning: ‘around now/these days’, and the latter has the more immediate sense. *Nadoned* is used by speakers to announce an imminent event, such as ‘I’m leaving right now’ or with the sense ‘from now’ as in ‘we will change something and it will be different from now’. *Nan ze*=**ned** and *nan ze*=**ne** are used in narrative-type discourse to refer to time in the story, i.e. *nan*=*ze*=**ne** ‘around this time (event-time in the narrative)’ and *nan*=*ze*=**ned** ‘at this specific time (event-time in the narrative)’. *Nan ze*=**dae** ‘then’ refers to a time which has passed or is distant from now, either in the past or future.

- (54) *ti=vti* *me* *lah=nam*
 2SG.FUT=hold.TR come cup=PROX.ADDR
 ‘Bring that cup (by you) to me.’ (jt:b13:3)

Locations and directions denoted by locational nouns can be determined by spatial demonstratives. A vertical location distant from the speaker is indicated in (55). Joplin’s son was asking where he should hang the lantern in the kitchen and she replied:

- (55) *de=ga* *ka* *ba* *mre=dae!*
 3SG.FUT=RT hang go up=DIST
 ‘It should hang up there.’ (ht-b8-62)

A locational noun indicating a direction on the horizontal axis, ‘northwards along the coast’ is determined by a demonstrative in (56). The speaker describes the location she has just come from. In this situation I was standing close to the speaker and the location she was referring to was a nearby village beyond the river, just a few hundred metres away in local-scale space. The direction ‘northwards’ from the speaker’s perspective was closer to me, being the addressee, as we were oriented along the coastline and her position was slightly southwards of mine.

- (56) *ni=me* *ze* *basiv=nam*
 1SG.EXCL.PFV=come SOURCE down=PROX.ADDR
 ‘I’ve come from the north by you.’ (mm-b14-50)

It was mentioned that use of the addressee-anchored demonstrative in a scale other than local space is incorrect. For example, in the same configuration as described above concerning the location of speaker and addressee, if the speaker had been referring to an area of north Pentecost instead of a nearby village, the distal demonstrative *dae* instead of *nam* would be used. Based on the usage of the speaker-anchored distal demonstrative and the addressee-anchored demonstrative, as exemplified above, it appears speakers make a distinction between local and non-local space. These terms are used without the

intention of saying there is a precise line in the sand where local space ceases being local. However, there is evidence that pragmatics plays a large part in locating entities in local space, but not in large scale space (Chapter 6). How and where the division is made is unclear and is beyond the scope of this thesis, but it is potentially associated with the speaker's perception of how accessible the space is, or how much shared knowledge of space there is between speaker and addressee.

Ske has a vocative pronoun *nzie*. In discourse *nzie* occurs when an entity, animate or inanimate, or an expected event previously known to the hearer or spoken about in a preceding sentence, suddenly appears on the scene or happens. The spatial demonstratives attach to the pronoun giving the location where that event or entity appears or occurs.

Three women were waiting for a telephone call and were sitting on the bank overlooking the road (enjoying the sea breeze) some way from the phone but within earshot of it. Finally, the awaited telephone call arrived. The woman sitting closest to the phone was expecting the call, and another, further away from the phone, exclaimed (57):

(57) *nzie=nam!*

VOCPR=PROX.ADDR

‘That’s it/ There it is (nearer to you)!’

Spatial demonstratives occur in phrases which have other discourse functions: in exclamations and in phrases with presentational or emphatic functions.

In exclamations, the demonstratives attach to an NP which refers to the entity about which the addressee is being alerted. When that entity suddenly arrives or appears on the scene, the demonstrative attaches directly to the noun, as in (58) below where Pastor Timoti warned me of an approaching mosquito.

(58) *ze tabken=nam!*

ART mosquito=PROX.ADDR

‘Mosquito (by you)!’(pt-b9-61)

In contrast, when the entity is already present and it is the speaker who happens on the scene, the demonstrative attaches to the completive particle *ze*. In (59) below, the hole is already in the road when we approach it and the speaker alerts the driver to the upcoming danger in an exclamation:

- (59) *hol ze=dae!*
 hole COMP=DIST
 ‘Hole (over there)!’ (rt-b14-57)

Demonstratives participate in phrases with the associative construct *na-* which have an emphatic function.

In (60) the speaker, Naomi, turned to look at the sea and drew our attention to the ship coming into view.

- (60) *waq na-n=dae, Makila!*
 ship ASSOC-CONST=DIST M
 ‘That ship there, (is the) Makila.’

Demonstratives in Ske have varied and complex functions in discourse and with temporal meaning and more research is required to fully describe them. This section has introduced spatial demonstratives in Ske and further analysis of their role in angular spatial referencing and their projective functions is discussed in Chapter 5.

3.8 Other Relational Expressions

The term ‘relational expression’ is used to describe all forms which denote facets of an entity such as the ‘front’ of a house, the ‘back’ of a ship or the ‘left’ of a person. Relational expressions come from different form classes: left and right terms (section 3.8.1) are common nouns; terms for ‘front’ and ‘back’ are a subclass of locational nouns. Bound relational nouns, and how they differ from other subclasses of bound nouns such as body-part terms and part-whole relationship terms, were discussed in section 3.5 due to their primary function as spatial relators in topological descriptions.

3.8.1 Left and Right Terms

Common nouns ‘left’ *mwir* and ‘right’ *mzó* refer to left and right sides of the human body. In (61) the toy man from the stimuli kit used to investigate Frames of Reference (Chapter 5) holds a walking stick in his right hand. In the example given below the speaker describes a photograph in which two toy men are pictured and describes the location of both their sticks.

- (61) *no-r* *udia,* *mra=vsi* *ne* *ngia-r*
 GEN.CL-3PL.POSS wood 3DU.IPFV=hold.TR INSTR hand-3PL.POSS
ne ***mzó***
 REL right
 ‘Their sticks, they’re holding them in their right hands.’
 (2009-05-12-00543-au-ptjt)

The terms can be used with a copular verb to describe handedness, as in (62).

- (62) *Kay* *m=bé* ***mwir***
 K 3SG.IPFV=COP left
 ‘Kay is left-handed.’

In angular descriptions, left and right terms occur in phrases where they follow a bound relational noun. A Figure can be located in relation to the left or right asymmetry of the Ground. In (63) the Ground is the speaker’s own body.

- (63) [NP [NP]]
lah *m=du* ***ra-n*** ***mwir***
 cup 3SG.IPFV=exist on-CONST left
 ‘The cup is on my left.’

Left and right terms have very restricted use and are only found in the corpus to describe asymmetries of humans. The terms are not found in large-scale spatial descriptions.

They are not used in a relative frame of reference in Ske (Chapter 5) wherein a speaker maps his or her left-right onto a Ground object in an expression such as *the cup is on the left of the table*.

3.8.2 Locational Relational Nouns (Positional)

The subgroup of locational relational nouns which code positional information (Chapter 2.5.2.1.2.) occur in angular spatial expressions. *Zek* ‘behind’ and *mwo* ‘front’ also have temporal meanings ‘after’ and ‘before’, respectively. In (64) *zek* is used in its temporal sense:

- (64) *tve=ga* *an* *zek*
 1PL.INCL.FUT=RT eat.INTR after
 ‘We will eat after.’

In a motion expression in (65) the speaker relates the order that Ben and I were returning to England.

- (65) *ti=mwol* *tabzon* *ae* *Ben* *de=ga* *met* *zek*
 2SG.FUT=return first CONJ B 3SG.FUT=RT go.ADDR behind
 ‘You will return first and Ben will go after.’

The bound relational noun which refers to a back of an entity *walo* (not the body-part term *sidio* ‘back’) can be used with very similar meaning (66).

- (66) *mwade=wrut* *met* *waló-m*
 1SG.EXCL.FUT=walk go.ADDR back-2SG.POSS
 ‘I’ll walk after you/behind you/follow you.’

Presumably by metaphorical extension (Lackoff & Johnson 1980) the temporal terms have gained spatial meaning such that they refer to the ‘front’ and ‘back’ of entities which are movable, such as people and vehicles. When referring to a facet of an entity,

zek and *mwo* form a compound with the associative construction to form a possessed noun:

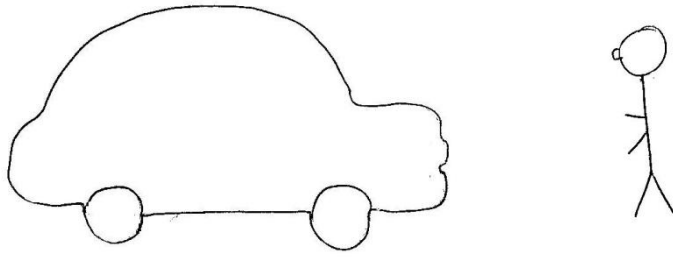
- (67) *mwo* *na-n* *waq*
front ASSOC-CONST ship
‘prow of ship’

- (68) *wil* *ne* *m=du* *zek* *na-n* *baeskel*
wheel REL 3SG.IPFV=exist behind ASSOC-CONST bicycle
‘The wheel (which is) at the back of the bicycle’

For angular spatial reference, these terms can only be used to describe a facet of an entity from where a vector can be projected in an intrinsic (or object-centred) Frame of Reference and cannot be used in a relative Frame of Reference (Chapter 5). Interestingly, even when the terms are used for spatial reference they betray some sensitivity still to their temporal meanings. For example when two faceted, potentially moveable entities are positioned front to front, as illustrated in Figure 3.12, it is incorrect usage of the term *mwo* ‘front’ to say one is in front of the other. The example in (69) is what I offered to describe this scene where a truck and a man are facing each other. The description was rejected by the speaker. However, had the truck been rotated by 180 degrees and the man and the truck then been facing the same direction, as if travelling to the same destination, the description would have been admissible.

- (69) *trak* *m=du* *mwo* *na-n* *azó*
truck 3SG.IPFV=exist before ASSOC-CONST man
‘The truck is in front of the man.’ (pt-b9-19)

Figure 3.12 Man and Truck Facing Each Other (configuration incorrect for example 69)



3.9 Deictic Motion Verbs and Directionals

Since motion expressions are not the focus of this thesis a complete description of the forms, functions and semantics of motion verbs in Ske will not feature here. Motion verbs which feature in static spatial descriptions are the deictic motion verbs *me*, *ba*, and *met* (see Table 3.8 where they have the function of ‘directional’ and specify location or orientation (which way an entity can be said to be ‘facing’ (see Chapter 5) with relation to a deictic centre. They lexicalize deictic Path information (Talmy 2007: 70), where Path is defined as ‘the path followed or site occupied by the Figure object with respect to the Ground object’. *Ba* ‘go’ may also express a directionally neutral path, a function linked to its Proto-Oceanic origins (Chapter 6). The deictic motion verbs function as directionals when in V2 position of an SVC and when in an adjunct which is a directional phrase. Deictic motion verbs can function as the main verb in a clause and also as aspectual operators.

‘On grounds of systemacity and parsimony one might suspect that verbs of motion should reflect the kinds of distinction made in the demonstrative series’ (Levinson 2006: 362). Ske is thus ‘systematic’, as deictic direction verbs do reflect some of the distinctions made by demonstratives (parameters of distance are not expressed by deictic motion verbs).

Table 3.8 Deictic Motion Verbs

Verb	Deictic reference
<i>ba</i>	no deictic reference/away from speaker
<i>me</i>	towards speaker
<i>met</i>	towards addressee/anaphoric deictic centre

Whereas *me* ‘come’ and *met* ‘go towards addressee’ always indicate a deictic centre, *ba* ‘go’ is not always anchored to the speaker¹⁸. *Ba* is used in Ske as the default motion verb and is typically used by speakers to ask or explain where someone is going. That in some instances *ba* is lacking in deictic specifications is clear when it occurs in an SVC as V1 where another deictic motion verb is functioning as a directional in V2 position. In (70) Pastor Timothy and I were seated in the church and could see the chief approaching us. If both motion verbs had deictic meanings here, they would be expressing opposite directions and the sentence would be infelicitous.

- (70) *jif=ze* *m=ba* *me* *en=dae*
 chief=COMP 3SG.IPFV=go come place=DIST
 ‘There’s the chief on his way here already.’ (pt-b15-99)

This is not unusual for deictic motion verbs: ‘recent work suggests that ‘go’ verbs rarely actually encode ‘motion away from deictic center’ – rather they are unmarked for deictic distinction and only by opposition to the deictically specified ‘come’ verbs pick up a Gricean conversational implicature of ‘motion away’ Levinson (2006: 168).

Another verb *mwol* ‘return’ occurs in similar types of discourse (commenting on a journey or returning home where addressee-anchored *met* could also be used) but is not classed as a deictic motion verb. *Mwol* is not anchored to a speech act participant and does not have the same distribution as the deictic motion verbs when they function as directionals. Neither does *mwol* ‘return’ function as an aspectual operator.

¹⁸ See also Chapter 6 on the historical origins of *ba* ‘go’ and geographic direction.

The functions of deictic motion verbs is as follows: deictic motion verbs may occur as the sole predicate in a VP (71, 72, 73); in SVCs in V1 or V2 position (74, 75); as aspectual operators with the echo-subject marker *la=* (76, 77, 80) (see Chapter 2.3.6.3) and as directionals in a locative phrase (81, 82, 83). These functions are described in more detail alongside examples below.

- (71) *Ale! **Ti=met** ho lal im batneaq=dae!*
 CONJ 2SG.FUT=go.ADDR EMP at house downhill=DIST
 ‘Ok! Off you go back to the house down there.’

- (72) ***kmwe=ba** ebe?*
 2SG.IPFV=go where?
 ‘Where are you going?’

- (73) ***ti=me** kiev-kiev!*
 2SG.FUT=come REDUP~quick
 ‘Come here quickly!’

When the deictic motion verb is in V2 position in an SVC, it has a modifying function and specifies the location or direction of the event denoted by V1. This is an example of event-argument SVC (Aikhenvald & Dixon 2006:18) and no arguments are shared between V1 and V2. In example (74) Lessian sent me a text message and asked if her previous message had arrived. *Met* ‘towards addressee’ is in V2 position and functions as a directional and the text message is sent in the direction towards the addressee. When using *met* there must be an addressee or other deictic reference point which implies a goal. So, for example sending a text message without having identified a recipient, or saying goodbye to someone and saying ‘off you go!’ as in (71) above, without having identified a destination, is incorrect usage of the verb. It follows that *met* expresses a direction towards a deictic centre rather than a direction away from a deictic centre.

- (74) **V1** **V2**
ni=text met mni inq. A=uv
 1SG.EXCL.PFV=text go.ADDR BEN 2SG.IND 3SG.PFV=arrive
ó ehe?
 or no
 ‘I sent a text to you. Did it arrive or not?’

In (75) the deictic motion verb is in V1 position in a switch-function consecutive SVC where the subject of intransitive V1 is same as subject of transitive V2 (Aikhenvald & Dixon 2006: 17) such that the same person both ‘came’ and then ‘asked’ in the example below.

- (75) **V1** **V2**
a=me wse tnie qmwam Jonas maqrek
 3SG.PFV=come ask.TR from 1PL.EXCL.IND J today
 ‘He came and asked Jonas and me today.’

In (76) and (77) *ba* ‘go’ and *me* ‘come’ operate as continuous aspect markers indicating repetition or ‘ongoingness’¹⁹.

- (76) *bwabwebweh m=rov la=ba la=ba la=ba,*
 red-head bird 3SG.IMP= move ES=go ES=go ES=go,
la=ba do ra-n udia
 ES=go sit on-3SG.POSS wood
 ‘The bird flies away and flies and flies and flies and goes and sits in a tree.’
 (2008-11-12-00056-au-ek)

¹⁹ Locative predicates may also function as aspect markers, see Chapter 4.

In (81) my position next to Elder Cain and towards Jill was is described.

- In (82) *ba* ‘go’ was being used contrastively to describe a location away from the speaker.

- Directionals also have functions in orientation descriptions where they specify the direction that a facet of an entity is looking or facing; this is shown in an adjunct in (83) and in an SVC in (84). This function is also referred to as fictive motion (Talmy 2000).

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Chapter 4

Hanging From the Ground and Standing Horizontally: Analysis of Ske Locative Predicates

4.1 Introduction

Locative predicates were shown in Chapter 3 to be obligatory components of the Ske BLC. A number of forms including relational nouns and prepositions were found to code topological notions of containment, contact and proximity, and yet Ske also has a set of seven locative predicates which are found in locative expressions. This chapter will investigate what configurational information they express and what motivates their selection.

Languages vary as to the number and type of locative predicate they have, or indeed of they have any at all. The BLC of some languages does not contain a verb, others use the copula or have a small set of locative verbs, usually posturals ‘sit’, ‘stand’ and ‘lie’, whereas others have a large set of ‘dispositionals’ which express precise orientational and dispositional information relating to the Figure and the Ground¹. Despite the commonality and variety in locative predicates cross-linguistically, analysis of locative predicates is ‘underrepresented in the literature’ (Levinson & Wilkins 2006). Indeed, ‘[o]ne special reason to be interested in these verbs is that their role in the semantics of locative expressions has been largely ignored’ (Ameka & Levinson 2007: 848).

In languages like Ske, which have a small set of locative predicates and include postural verbs in their number, it is anticipated that these verbs code dimensions of the Figure. This is largely based on their anthropomorphic origins. The predicates typically ‘act as a sort of nominal or sortal classification of the Figure’ (Levinson & Wilkins 2006: 524). However, analysis of the locative predicates in Ske reveals that the selection of the predicate is based on identification of the support relationship involved between the Figure and Ground, or Force-Dynamics (Newman 2002), and that locative predicates

¹ The collection of chapters in Levinson & Wilkins (2006) provides examples and descriptions of languages that contain the types of locative predicates mentioned here.

also have pragmatic functions, such that use of the postural *we* ‘lie’ in relation to a Figure implies illness or death.

In this chapter, the semantics and pragmatics associated with the locative predicates found in the Ske BLC are analysed. Factors responsible for their selection will be highlighted and why, for example, a speaker can use the positional verb ‘stand’ to describe what, superficially, appear to be quite different configurations; this is shown in examples (1) where a flower bush stands rooted to the ground and (2) which describes a cigarette hanging almost horizontally out of a man’s mouth:

- (1) *bwa-n* *ngiek* *nier* ***be=pet***
 head-3SG.CONST flower PL 3PL.IPFV=stand
 ‘There are some flower bushes (standing).’
- (2) *sonbienab* ***m=pet*** *lalywa-n* *azó*
 cigarette 3SG.IPFV=stand mouth-CONST man
 ‘The cigarette is in the man’s mouth.’

The following topics will be covered in this chapter. In section 4.2 an overview of the literature on locative predicates is given; frameworks used to analyse the semantics of the locative predicate are introduced. In section 4.3 Ske locative predicates are formally distinguished and examples of each locative predicate are given with an outline of the configurations they code. In section 4.4 each of the locative predicates is examined in detail and in section 4.5 a comparison of locative, existential and equation (and proper inclusion) clauses is made. In 4.6 conclusions are drawn.

4.2 Overview of literature on locative predicates and frameworks for analysis

Until recently, spatial information expressed by locative predicates has largely been overlooked based on the assumption that all spatial language in locative expressions is to be found in spatial relators such as adpositions (Landau & Jackendoff 1983 in Ameka & Levinson 2007), as is the way in English.

Oceanic languages typically have these small sets of postural verbs which code dimensions of the Figure and can often function as aspectual operators (Lichtenberk 2002; Aikhenvald 2006) but may also use other verbs, including verbs of motion, to describe static spatial expression (Senft 2006). Whilst grammars of Vanuatu and other Oceanic languages include postural verbs in their description they tend to lack detail on what types of configurations they code.

This study will refer to recent publications on positional verbs by Newman (2002) and Ameka & Levinson (2007), which are the two major collections of analyses of postural and positional verbs with a cross-linguistic perspective. Ameka & Levinson (2007) formulate a typology which classifies languages with respect to the number, usage and types of verbs which occur in their Basic Locative Construction. Their classification of locative predication in languages reveals four basic types, shown in Table 4.1 below.

Table 4.1 Typology of Languages with respect to their Locative Predicates

Type 0:	No verb in basic locative construction	
Type I:	Single locative verb (or suppletion under grammatical conditioning)	
		Ia: Copula or Locative/Existential predicate
		Ib: Locative verb determined by grammatical categories
Type II:	A small contrastive set of locative verbs (3-7 verbs)	
		Iia: Postural verbs
		Iib: Ground space indicating verbs
Type III:	Multiverb Positional verbs (a large set of dispositional verbs, 9-100)	

(Adapted from Ameka & Levinson 2007: 858)

Ameka & Levinson (ibid) make numerous and varied predictions for each language ‘type’ and the locative predicates found in them. Predictions are not merely related to the kind of semantics the locative predicates express; multi-functionality of locatives (e.g.) whether they function as copulas), number of adpositions found in the language (small number of adpositions where there are a high number of locative predicates) and pragmatic functions (assertional and presuppositional usage, described below) are also discussed.

Of relevance here are predictions for Type III languages and Type II languages to which Ske bears most resemblance. Taking the number of locatives in the language as a rudimentary starting point, Ske is classed as the postural language type (Type II²), referring to languages which utilise a relatively small set of 3-7 postural verbs and hence code a restricted number of semantic notions, usually ‘sit’, ‘stand’, ‘lie’, ‘hang’ and ‘be located in a natural habitat’. Ameka & Levinson predict that languages of this type use verbs in two ways. Firstly there is an assertional usage, where the speaker selects the verb to describe the current, possibly transient, position of the Figure. Secondly, there is a presuppositional usage, where the verb describes the canonical, if not the actual, position of the Figure. The locative predicates found in Ske include the postural verbs predicted in the typology: ‘sit’, ‘stand’, ‘lie’, and the positional ‘hang’, but Ske also has three further verbs at its disposal. Two verbs code number of Figures or a physical property of the Figure (non-moving liquids) and the third is an existential verb.

Both analyses in Newman (2002) and Ameka & Levinson (2007) find that dimensions of the Figure motivate the selection of the positional or postural verb. According to Ameka & Levinson (2007: 859), the usage of the locative predicates found in Type II languages are ‘despite the partially anthropomorphic source [...] partially or even largely determined by the abstract geometric properties of the Figure object’. In Newman (2002) only postural verbs are analysed. Their anthropomorphic origins are considered paramount and they are described as encoding abstract shapes which correspond to human posture by way of their axial properties.

The collection of articles in Newman (2002) focus on the postural verbs ‘sit’, ‘stand’ and ‘lie’. In the introduction to the collection he observes that ‘[w]ith all three of these postures there is a strong sense of extension of state through time, and a strong sense of the contrast between spatial configurations involved: a compact shape is associated with sitting; an upright, vertical elongation with standing; and a horizontal elongation in the case of lying’ (2002: 1). Ameka & Levinson have a less restrictive take on the semantics

² The language ‘types’ referred to are those with the revised number order proposed by Ameka & Levinson (2007: 863-4) where the small set type is Type II although in the original hypothesis this group is called Type III.

of posturals. Instead of being based around anthropomorphic extensions, the use of posturals is concerned more with the salient axes of the Figure itself, being more ‘likely to be based on the orientation of the maximum axis of the object when in canonical position (i.e. the position in which an object normally occurs, is used, or stored) [...] ‘sit’ when there is no major axis, or object has a wide base in canonical position, ‘stand’ ‘when long axis is canonically vertical’, and ‘lie’ when the ‘long axis is canonically horizontal’ (2007: 859). The main differences, therefore, between the interpretations of positionals in the literature is that selection of the positional takes, as its cognitive cue, human posture (Newman 2002) or a more abstract interpretation based on shape and the canonical position of the Figure (Ameka & Levinson 2007). In addition, Ameka & Levinson (2007) include other verbs, such as ‘hang’, in their analysis of locative predicates.

Newman expands the discussion of posture verb semantics taking into account force-dynamics and socio-cultural and pragmatic associations made with the individual verbs, or as he describes it, the ‘spatial images in human conceptualization’ (Newman 2002: 3). Force-dynamics refer to the physical effort involved in maintaining the postures expressed by the verbs, which, in order of greatest to least effort required are given as: stand, sit and lie. The conceptualizations are meant to have implications not only for how configurations and dimensions of objects are described, but also for the use of posturals as aspectual operators. The force-dynamics and socio-cultural domains and semantics they may imply are set out in the table below and could explain usage of *we* ‘lie’ (4.4.3) and *pet* ‘stand’ (4.4.4) in Ske where the explanation from the spatio-temporal domain falls short.

Central meanings of English *sit*, *stand*, and *lie* (all refer to maintaining of posture, rather than getting into posture)

Spatio-temporal domain	<i>sit</i>	relatively compact position
	<i>stand</i>	vertical elongated position
	<i>lie</i>	horizontal elongated position
Force-dynamics domain	<i>sit</i>	medium degree of control and balance (upper torso): easily maintained
	<i>stand</i>	highest degree of control and balance (upper and lower torso): most difficult to maintain
	<i>lie</i>	lowest degree of control and balance: no physical effort to maintain
Social/Cultural domain	<i>sit</i>	comfortable position either for working or relaxing
	<i>stand</i>	potentially most physically powerful position
	<i>lie</i>	associated with tiredness, sickness, sleep

Table 4.2 Postural Verbs: Force Dynamics and Socio-Cultural Associations

(Adapted from Newman (2002: 3))

Analysis of the semantics of the locative predicates in Ske explores the issues raised above. The preliminary categorization of Ske as a Type II language will be explored further to look at how Ske both fits the character of a Type II language and also diverges from the group. We look at the number of locatives and the range of meanings they have beyond postural semantics. Pre-suppositional and assertional use of the predicates is explored as is to what extent the dimensions or axial properties of the Figure motivate the selection of the predicate. We also consider how force-dynamics and socio-cultural associations play a role in the selection of locative predicates in Ske.

4.3 Introduction to Ske Locative Predicates³

In the sub-sections to follow, each of the Ske locative predicates are examined in turn. However, to give an overview and initial impression of their use, a few examples are

³ I use the term ‘locative predicate’ to subsume the terms ‘postural’ and ‘positional’. ‘Postural verb’ refers to those verbs which may have an anthropomorphic extension, i.e. ‘sit’, ‘stand’ or ‘lie’. ‘Positional’ refers to the existential and the other predicate which encodes number of Figures *sok* ‘be located many’ (optional for plural entities) or characteristics of the Figure *sol* ‘pool’ (optional for non-moving liquid entities).

provided below. There are seven contrastive locative predicates in Ske; *pet* ‘stand’ (3), *do* ‘sit’ (4), *we* ‘lie’ (5), *ka* ‘hang’ (6), *du* ‘exist’ (7), *sok* ‘be grouped’ (8) and *sol* ‘pool’ (9). Examples of configurations each predicate may express are shown below.

- (3) *kzo-n* *ri* *a=pet* *ra-n* *bletpav*
 container-CONST water 3SG.PFV=stand on-CONST table
 ‘The bottle was (standing) on the table.’

- (4) *puskat* *a=zo* *ra-n* *maqót*
 cat 3SG.PFV=sit on-CONST mat
 ‘The cat sat on the mat.’

- (5) *sungsung=ne* *m=we* *zvan* *lia-n* *gilgilkor*
 umbrella=PROX2 3SG.IPFV=lie down side-CONST wall
 ‘This umbrella is lying down (on the floor), against the wall.’
 (i.e. parallel with the wall but on the floor).

- (6) *ul* *ave=ka~ka* *lia-n* *ao*
 clothes 3PL.PFV=REDUP~hang side-CONST rope
 ‘The clothes were (hanging) on the line.’ (2008-12-02-00128au-cw)

- (7) *a=zale* *nó* *ae* *malie-n* *azio*
 3SG.PFV=cut.TR 1SG.EXCL.IND CONJ track-CONST knife
 m=du *lia-q,* *lia-n* *sihlie-q*
 3SG.IPFV=exist side-1SG.EXCL.POSS side-CONST leg-1SG.EXCL.POSS
 ‘He cut me and the mark of the knife is on me, on my leg.’

- (8) *a-m* *anian* *m=sok* *en=nam*
 CL.ED-2SG.POSS food 3SG.IPFV=be.grouped place=PROX.ADDR
 ‘Your food is there (by you).’

(9)	<i>ze</i>	<i>vnó</i>	<i>tes=ned</i>	<i>a=zu</i>	<i>mwari-n</i>	<i>ze</i>
	ART	village	small=PROX1	3SG.PFV=exist	edge-3SG.POSS	ART
	<i>ót</i>	<i>tes</i>	<i>ne</i>	<i>ri</i>	<i>o ske, zeh,</i>	<i>a=sol</i>
	place	small	REL	water	or what, sea	3SG.PFV=pool

‘Some small village here stands at the side of a small place where freshwater, or what is it, seawater is pooled/there is seawater.’ (2009-04-24-00454au-pt)

Although later in this section we will see that the semantics coded by the locative verbs is not as straightforward as this, here, as a starting point, is an interpretation of what is expressed. In (3) *pet* ‘stand’ appears to describe the configuration between the bottle and the table: the bottle’s vertical stance, as well as its dimensions, as a long object with a shorter base. The bound relational noun *ra* ‘top’ codes contact with the facet of the table which is its upper surface. In (4) *zo* ‘sit’, a postural verb, is used with a cat in a canonical sitting position. *We* ‘lie’ in (5) describes a horizontal configuration of the umbrella with the floor and *lia* codes this notion of extended contact between the long side of the umbrella and the long surface of the wall. In (6) the positional verb *ka* ‘hang’ reduplicates (indicating plurality of clothes) and describes the Figure’s being suspended from the washing line, apparently indicating the notion of support from above. Again *lia* codes extended contact of the clothes along the washing lines. In (7) and (8) *du* ‘exist’ and *sok* ‘be grouped’ are non-specific with regard to the configuration between F and G. *Sok* indicates that the speaker perceives the Figure not to be a singular entity; for example, a number of items of food may be being referred to. Finally, *sol* ‘pool’ (9) is non-specific with respect to configurational semantics, but occurs when the Figure is liquid.

4.3.1 Formal Properties of Ske Locative Predicates

Ske locative predicates belong to the class of strictly intransitive verbs (Chapter 2.6.6) which includes stative verbs and dynamic verbs. The locative predicates are members of the dynamic subclass of intransitive verbs which also includes deictic motion verbs (Chapter 3.9) and manner verbs, including *plik* ‘lean forwards’ *lol* ‘lean backwards’ and

eng ‘lean’ which code non-vertical manners of standing. Locative predicates are distinguished from other intransitive verbs for reasons provided below.

Like stative verbs, locative verbs can be marked for perfective aspect to code a state. A locative verb in (10) and a stative verb in (11) both code a state. However, unlike stative verbs, when locative verbs are marked for imperfective aspect, a change of state is not implied. Instead, when locative verbs are marked for imperfective aspect, an action taking place at the time of speaking, or an habitual action is implied. Example (12) shows a locative verb marked for imperfective aspect and (13) shows a stative verb marked for imperfective aspect.

- (10) *bwaudia* ***a=pet***
tree 3SG.PFV=stand
‘A tree stood.’

- (11) *ul* ***a=rab***
cloth 3SG.PFV=be.new
‘The cloth is new.’

- (12) *azó* ***m=pet***
man 3SG.IPFV=stand
‘A man stands/is standing.’

- (13) *anian* ***mwe=broh***
food 3SG.IPFV=be.black
‘The food is turning black.’

Most intransitive verbs do not reduplicate⁴. Stative verbs may reduplicate and in this case the meaning of the verb is intensified (14). However when locative verbs reduplicate,

⁴ Note that the intransitive counterparts of verbs which have transitive/intransitive forms do reduplicate, however, the intransitive form is derived from the transitive form and they are thus not classed as strictly intransitive, unlike the set of locative predicates and stative verbs.

plurality of the subject is indicated. The subject marker may specify non-singular number, but this is not obligatory.

- (14) *ót a=trie~trieb*
 place 3SG.PFV=REDUP~be.clear
 ‘It’s really clear.’

- (15) *ave=pet~pet ra-n im*
 3PL.PFV=REDUP-stand ON-CONST house
 ‘They were (standing) on the house.’ (2008-12-01-00086au-cw-ek)

- (16) *de=ga ka~ka?*
 3SG.FUT=RA REDUP-hang
 ‘Should they (the solar lanterns) hang up?’ (ht-b16-24)

Deictic motion verbs, which are also strictly intransitive, and locative predicates may occur with a locational or temporal adjunct. In terms of semantics however, the nominal expression (a locative adjunct) which follows a motion verb has the semantic role of ‘Goal’ (17). In contrast, when following a locative verb, the nominal expression has the role of ‘Location’ (18).

- | | | | | |
|------|--------------------------------|--|------------|-----------------|
| | | | [NP | NP Goal] |
| (17) | <i>Ben m =ba ra-n srek</i> | | | |
| | B 3SG.PFV=go on-CONST field | | | |
| | ‘Ben is going to the airport.’ | | | |

- | | | | | |
|------|---|--|------------|-----------------------|
| | | | [NP | [NP Location]] |
| (18) | <i>qol m=du ra-n srek</i> | | | |
| | land-diving tower 3SG.IPFV=exist on-CONST field | | | |
| | ‘The land-diving tower is at the airport.’ | | | |

Further distinctions between locative predicates and other intransitive verbs is when they function as V1 in an asymmetrical SVC where one of the deictic motion verbs is in V2 position, and also when they occur in ES constructions (Chapter 2.3.6.3).

In (19) *sol* ‘pool’ is V1 and *ba* ‘go’ is in V2 position; the meaning is that the incidence of pools of water is repeated along the road. There is no motion involved. Recall that, as mentioned above, reduplication of locatives indicates that the subject is plural.

- | | | | | | | | |
|------|--------------------------------------|---------------------|--|-----------|-------------|------------|---|
| | | [SVC | |] | [NP | |] |
| (19) | <i>zung</i> | <i>be=sol~sol</i> | | <i>ba</i> | <i>ra-n</i> | <i>sal</i> | |
| | puddle | 3PL.IPFV=REDUP~pool | | go | top-CONST | road | |
| | ‘Puddles are pooled along the road.’ | | | | | | |

In (20) the postural verb *pet* ‘stand’ occurs in an SVC with the motion verb *ba*. A similar inference is made to that in the (19) above, that multiple trees are standing along the hillside.

- | | | | | | | | |
|------|---|-------------|----------------------|---|-----------|--------------|-------------|
| | | [SVC | |] | [NP | |] |
| (20) | <i>bwaudia</i> | <i>nier</i> | <i>be=pet~pet</i> | | <i>ba</i> | <i>lia-n</i> | <i>téng</i> |
| | tree | PL | 3PL.IPFV=stand~stand | | go | side-CONST | hill |
| | ‘There are lots of trees along the hillside.’ | | | | | | |

Stative verbs are ungrammatical in an SVC with a motion verb in V2, when they are marked for either perfective or imperfective and future tense, as shown in (21).

- | | | | |
|------|-----------------------------------|--|-----------|
| (21) | <i>*a=/mwe=/de=rvang</i> | | <i>ba</i> |
| | 3SG.PFV=/3SG.IPFV=/3SG.FUT=be.red | | go |

ES constructions express simultaneous or consecutive events⁵. It is ungrammatical for a locative predicate to appear as the main verb in an ES construction with a motion verb in the dependent clause, as shown in (22), because motion is implied. However, other

⁵ In which case there is conceptual cause-effect link between the two events.

dynamic verbs can appear in such constructions (23) with, here, the meaning that the actions occur simultaneously.

- (22) **a=pet* *la=me*
 3SG.PFV=stand ES=come

- (23) *a=plik* *la=me*
 3SG.IPFV=lean.forwards ES=come
 ‘He leaned as he moved towards me.’

4.3.2 Locative Predicates as Aspectual Operators

Typical of Oceanic languages (Aikhenvald 2006; Lichtenberk 2002; Early 1998), positional verbs in Ske may function as aspectual operators in complex constructions or SVCs. Verbs are most commonly specified for tense-aspect distinctions by subject markers (Chapter 2.6.1), but deictic motion verbs also have aspectual operator functions (Chapter 3.9) as do positionals. The locative verbs *du* ‘exist’ and *do* ‘sit’ occur in SVCs and in cosubordinated constructions with the ES marker with aspectual meaning.

Du ‘exist’ encodes progressive aspect when in V2 position in a serial verb construction to show that the event specified by V1 is ongoing at the contextual occasion. The example below (24) was taken from a route description text. The speaker relays the events of the trip and described how, when we were picked up by the truck and were travelling towards the village from where the route description text was recorded, we saw a lady from Bwaravet walking in the direction the truck was travelling. Here, the deictic motion verb *me* ‘come’ is in V1 position and *du* ‘exist’ is in V2 position.

(24) *pe=me* *ót* *ne* *leb* *m=du* *ra-n*
 1PL.INCL.IPFV=come place REL mud 3SG.IPFV=exist on-CONST
sal *ae* *la=ve* *lse* *dadó-n* *Ben,*
 road CONJ ES=3PL see.TR wife-CONST B,
a=me *du*
 3SG.PFV=come exist
 ‘We come to the place where there’s mud on the road and we saw Ben’s wife,
 she was coming this way.’ (pt-11.4)

In (25) *zo* ‘sit’ codes habitual aspect⁶ when it is the verb in the main clause followed by a dependent clause in an ES construction. The verb in the dependent construction is specified for habitual aspect.

(25) *a=zo* *la=anrah*
 3SG.PR.V=sit ES eat.steal
 ‘He used to steal food.’ (jm-b16-7)

Subject pronouns encode perfective and imperfective aspects as well as future tense in Ske (Chapter 2.6.1). When a verb is marked for perfective aspect, the event is bounded but it is ambiguous with respect to whether the action occurred on a single occasion or repeatedly, or coincided with another event in the past. The imperfective aspect does not distinguish habitual or current action from a sustained action or event occurring over a long period of time. Positional verbs used as aspectual operators fill a functional gap otherwise inexpressible in the grammar.

4.4 Semantics of Locative Predicates in Ske

In the following sections the semantics coded by each locative predicate is examined in turn.

⁶⁶ Lichtenberk (2002) makes a connection between the postural 'sit' as an action which is sustained over a period of time without effort involved and its use as an aspectual operator to encode duration or repetition of an event, such as in progressive or habitual aspects.

4.4.1 Semantics of *du* ‘exist’

The existential verb *du* functions as the ‘general verb’ predicted for Type II languages, used when a more specific locative verb is not relevant, for example when asking ‘What’s in the cupboard?’ (Ameka & Levinson 2007: 858). It codes a non-specific location with respect to the Ground and gives no indication as to the dimensions of the Figure. It can take any noun as its grammatical subject: animates, inanimates, geographic locational nouns and also non-singular subjects⁷.

Du is almost obligatorily used in establishing the whereabouts of an animate or inanimate subject and is the locative verb most commonly found in the corpus with the interrogative *ebe* ‘where?’. It is used in relation to habitual location, such as to ask where someone lives (26).

- (26) *Jif Pol m=du imriaq na-n ót ne*
 J P 3SG.IPFV=exist uphillwards ASSOC-CONST place REL
qol m=du en
 land-diving tower 3SG.IPFV=exist place
 ‘Chief Paul lives/is uphill from the place where the land-diving tower is.’

Also it has more a more specific, whilst still configurationally general, usage, being found when referring to animate or inanimate subjects when their posture is not in focus. This use is illustrated below with a question (27) and response (28) about Joplin’s son Howard.

- (27) *Howad m=du ebe?*
 Howad 3SG.IPFV=exist where?
 ‘Where is Howard?’

⁷ This is a relevant issue as Ske also has a locative predicate used for non-singular number of entities *sok* ‘be grouped’ which is non-specific with respect to position, dimension and support issues, like *du*.

- (28) *m=du* *ra-n* *waq*
 3SG.IPFV=exist top-CONST ship
 ‘He’s on the ship.’

Du is typically used when the Figure cannot be seen due to its being located some distance away or being obscured from view. For example when the entity is in a bag, or covered by a cloth, or in a porcelain cup or other opaque container (29).

- (29) *Lessian* *a=hngu* *ab* *va-n* *kzo-n*
 L 3SG.PFV=light.TR fire under-3SG.POSS container-CONST
 rang~rang-an *ne* *loq* *ih* *a=zu*
 REDUP-cook-NOMLZ REL laplap banana 3SG.PFV=exist
 lo-n
 inside-3SG.POSS
 ‘Lessian lit the fire under the cooking pot which the banana laplap was in.’
 (pt-b8-9)

Even if the dimensions of the distant Figure are well-known, *du* can be used, although another appropriate positional verb can, optionally, be selected. This is exemplified by the second occurrence of *du* in (26). The grammatical subject of the second *du* is *qol*, which is the word in Ske for both the land-diving event the area is renowned for and the tower the jumpers leap off; here, the second interpretation is intended. Speakers are very familiar with the structure of the tower and often use *pet* ‘stand’ when describing its location, however, here the postural is not used, which shows that its selection is not obligatory and that *du* is also applicable.

Similarly, *du* can be used to replace any of the other positional verbs in the set, both when that verb is used to describe the canonical position of a Figure - hence the position is implicitly known - and also when the configurations are not anthropomorphic extensions or reflect dimensions of the Figure. These two situations are outlined by the interchangeable usage of *we* ‘lie’ in the examples below.

We ‘lie’ (section 4.4.3) codes positions associated with human posture of lying down and also Figures in canonical position whose main axis is horizontal. In addition to these positions, examples of which are given in the section devoted to *we*, the postural verb also occurs when describing the location of places, such as villages and islands, and entities suspended in a Ground medium, such as marine life in water and celestial bodies in the sky. The examples below show how *du* can also be used in these contexts, indicating the location of a village (30) and a shark (31).

- (30) *Lolmulmu m=du basiv=dae*
 L 3SG.IPFV=exist up=DIST
 ‘Lolmulmu is northwards there/that way.’ (nm-b8-28)

- (31) *be m=du la zeh*
 shark 3SG.IPFV=exist at sea
 ‘Sharks are (live) in the sea.’

Use of *du* extends beyond that of a general non-specific locative. *Du* has a special use in Ske which in Ameka and Levinson’s typology is predicted for Type III languages rather than the Type II set. In contexts specified by Ameka & Levinson such as expressions of negative location (‘the dish isn’t on the table’), or when the orientation is unknown, they propose that the presuppositional use of the positionals is triggered. However, in Ske the presuppositional use of positionals never occurs. In these contexts, speakers shift to the existential verb. Importantly, when *du* is used to describe a negative location, whilst it is an existential verb it does not negate the existence of an entity: Ske has a negative existential *tnia* ‘neg.exist’ which is used for such purposes.

A further use of *du* which occurs contrary to the predictions in the literature is that it functions as the default verb. The default verb is the form to be employed in the context ‘What did you say is _ the table?’ (Ameka & Levinson 2007: 859). According to the literature on positional verbs, the default positional is ‘stand’ (Newman 2002) or ‘sit’

(Ameka & Levinson 2007: 859) for Type II languages of which Ske exhibits most characteristics.

The examples above show that *du* is semantically weak in that it gives no information relating to the shape of the Figure or its internal posture, however it does code certain configurational relations, specifically the topological notion of complete containment although this is more related to the visibility parameter than containment per se. It can replace other locative verbs regardless of the shape, internal posture of the Figure or configuration between Figure and Ground, albeit that this is typically when the Figure dimensions and configurational information is not made explicit. Also it is used as the default positional verb and in the negative location context described above. These findings show that *du* has a wider range of functions than the other locative predicates, presumably due to its not being semantically rich (4.5) and is indeed the general locative predicate. The corpus reflects this and finds that *du* occurs much more often than any of the other positional verbs.

4.4.2 Semantics of *do* ‘sit’

Do ‘sit’ is a postural verb and codes all seated positions of animates; in the corpus, people and animals such as pigs, birds, cats and dogs are reported as sitting. It is infelicitous for the grammatical subject of *do* to be an animal such as a cow which may stand or lie, but not sit.

Although the source of the verb is anthropomorphic, inanimate entities may also ‘sit’. In the literature, use of the postural ‘sit’ is triggered by the dimensional properties of the Figure, however the salient dimensional properties of the Figure which motivate use of the ‘sit’ postural are viewed differently. According to Ameka & Levinson (2007: 859) the salient dimension of the entity is ‘likely to be based on the orientation of the maximum axis of the object when in canonical position (i.e. the position in which an object normally occurs, is used, or stored) [...] ‘sit’ when there is no major axis, or [the] object has a wide base in canonical position’. For Newman (2002: 1) on the other hand, the dimension evoking the use of ‘sit’ across languages is a ‘compact shape’. Both

descriptions of the dimensions of the Figure correspond to uses of *do* ‘sit’ in Ske. Figures with a compact shape such as cardboard boxes and cups (32) and baskets; Figures with a wide base, arguably a hat with a brim (33) and a lid on a cooking pot (34) and; Figures whose major axis is not discernible such as football (35), all occur with the positional *do* ‘sit’.

- (32) *katen m=do ra-n bletpav, ae lah*
cup 3SG.IPFV=sit top-CONST table CONJ cup
m=do ra-n ae m=du ra-n
3SG.IPFV=sit top-CONST CONJ 3SG.IPFV=exist top-3SG.POSS
mwari-n
edge-3SG.POSS
‘The box is on the table and the cup is on it, at its (the table’s) short side.’
(2009-04-24-00430au-jt and 2009-04-24-00431au-jt)
- (33) *kzo-n bwa-n a=zō ra-n bwa-n*
container-CONST head-CONST 3SG.PFV=sit on-CONST head-3SG.POSS
‘A hat was on his head.’ (2008-12-01-00098au-cw)
- (34) *bla-n ol nanen ae vwa-n*
skin-CONST coconut there CONJ lid-CONST
m=do ra-n
3SG.IPFV=sit top-3SG.POSS
‘The cooking pot there, its lid is on it.’ (2009-05-12-00539-au-ptjt)
- (35) *tnien bwa-n avlu vie-n pra~prah-an*
nut head-CONST black.palm PURP-CONST REDUP~kick-NOMLZ
m=do va-n watno-n zo-an
3SG.IPFV=sit under-CONST place-CONST sit-NOMLZ
‘The football is under the chair.’ (2008-12-01-00108au-cw)

It should however be noted that in the case of the latter two shape-types: Figures with a wide base and Figures with no discernible axis, there is some variation in the posturals they occur with. The cooking pot lid and the football are also found in the corpus with the positional *we* 'lie'. In the case of the lid, *we* is found when the lid is lying on the floor, next to the pot, but both *do* 'sit' and *we* 'lie' are found when the lid is placed on the pot. The implication is that it is not the wide base or other dimension of the Figure which triggers the use of the positional, but that there is another motivating factor. The analysis is that the motivating factor is the 'support' relationship; when the lid is not supported by its base, the pot, then it is totally reliant on the surface it is placed on to stay in position, in this case *we* 'lie' is applicable. In this way, the objects described in (33-35) above remain in a stable position due to their own means of support: the base of the cup and the box or the brim of the hat. The lid occurs with both *do* 'sit' and *we* 'lie' depending on whether it appears on its base or not in which cases it either can or cannot, respectively, provide its own means of stable support.

A further point in favour of the Support analysis and against the analysis that Figure dimensions are the primary motivating factor in the selection of 'sit' posturals is that *do* 'sit' occurs in Ske when the dimensions of the Figure have no similarity to those observed by either Newman (2002) or Ameka & Levinson (2007). That a 'compact shape' motivates the use of 'sit', as described by Newman, is underpinned by the argument that postural verbs exclusively express anthropomorphic postures. The dimensions described in Ameka & Levinson focus on three-dimensional entities only. In (36) writing on a page, a two-dimensional Figure, occurs with *do* 'sit'. In (37) another example of writing occurs with the positional *we* 'lie'. These entities do not have canonical shapes or dimensions to speak of; writing is characterised by being of varying size and shape. In observed data, writing or signatures occur with either *do* 'sit' or *we* 'lie', as in (36) where writing is on a poster hanging vertically on a wall, and in (37) where the written-in book lies flat on the table. Note that the choice of postural is thus not dependent on the how the page is inclined and that *pet* 'stand' is not used when the page is vertical (see also section 4.4.3, example 49 and section 4.4.4 on *pet*).

- (36) *ti~tih-an* *a=zɔ* *ra-n*
 REDUP~write-NOMLZ 3SG.IPFV=sit top-CONST
 ‘Writing is (sitting) on it.’ (2008-12-01-00093au-cw)
- (37) *dlo-n* *de=we* *lo-n* *robwet*
 word-3SG.POSS 3SG.FUT=lie inside-CONST book
 ‘Words will be in the book.’ (i.e. ‘We will write in the book.’)
 (pt-b11-12)

Another entity whose positions is described by *do* ‘sit’ is a chair. Interestingly, a chair, unlike other Figures with legs, whether animate or inanimate, is always said to ‘sit’ rather than ‘stand’, although the corpus also contains one token of a table in canonical position and one of a truck occurring with *do* ‘sit’. Therefore, whilst a chair is indeed a compact shape, and may not necessarily have a major axis, other Figures with similar dimensions and legs, including a table or a truck, whose wheels represent a kind of raised base, favour the postural *pet* ‘stand’ but the observations of Ameka & Levinson (2007) stress that their dimensions should cause a ‘sit’ postural to be used. This indicates one of two things, either a) or b) outlined below:

a) the characteristic of having legs overrides categorization of the Figure based on its shape or axes, which then leads tables and trucks to occur with *pet* ‘stand’. Recollecting however that a chair occurs with the postural ‘sit’ we see that the use the object is put to, or probably the posture of the human using the object, overrides its having legs, showing that the most salient characteristic, above its general dimensions and above its having legs, is the anthropomorphic extension of the Figure.

b) the overlapping use of ‘sit’ and ‘stand’ is a linguistic development which reflects a cultural change. Objects which occur with both *do* ‘sit’ and *we* ‘lie’ are either cultural introductions, technological developments, or, like chairs, objects which in their modern guise (imported plastic picnic furniture instead of long low benches or tree stumps) differ to traditional designs. These objects therefore collocate less strongly with a positional

which explains the fluctuation between coding by the two postural verbs. On the one hand, a ‘chair’, or tree stump, is compact shape with a wide base which was able to support itself without assistance from the Ground and the use of the ‘sit’ positional has therefore been attached to the newer chair entity. On the other hand, the truck, a recent introduction with wheels which could be interpreted as providing a base, which thus enables it to support itself (hence its appearance with ‘sit’), or like the table, they are interpreted as legs, a feature which speakers increasingly mention as explanation for the use of ‘stand’ which also then categorizes it as a Figure which requires greater assistance from the Ground for support.

If a) is correct then this would support Newman’s (2002) emphasis on the human posture origins of the verbs being more salient than the abstract dimension and configurations in the analyses of Ameka & Levinson (2007). If however b) is correct then again, we see that the dimensions of the Figure are less relevant than the type of Support the Figure is able to maintain and how it does so. My assessment is that the latter is more likely.

4.4.3 Semantics of *we* ‘lie’

Animate entities are described as lying if they are configured in a horizontal relation to the Ground so that they are entirely supported by the Ground and do not project away from it. Snakes for example, in static position, are always located with *we* ‘lie’ (38).

- (38) *brasok* *a=we* *dli-dli* *ra-n* *vet*
 snake 3SG.PFV=lie REDUP=round top-CONST stone
 ‘The snake was curled up on the stone.’ (2009-05-08-00514au-mmhm)

As expected, people or animals resting or sleeping are always described as lying on a bed, mat or ground.

Beyond this, the lying posture in Ske is found to hold the kind of connotations Newman (2002: 1) includes in the ‘socio-cultural domain’. Conceptualisations of posture, featured

in Table 4.2 above, show how the position of lying down conjures images of sickness and death. In the corpus there are examples of configurations of people lying down when they are not in sight and are located at some distance, which in a typical context would trigger the use of the existential verb *du*. The selection of the positional verb *we* ‘lie’ here in fact implies the state of health (39), or indeed life (40), of the person in question. For example, when one of my main consultants, an elderly Baravet resident, slipped on concrete after a heavy rainfall, he was taken to a clinic in a village south of Baravet. I enquired where he was and was told:

- (39) *Tabah* *Cain* *m=we* *Pangi*
 old C 3SG.IPFV=lie P
 ‘Elder Cain is (lying down) in Pangi.’ (i.e. He is unwell there.)

A further example came when I was speaking to another Baravet resident who had moved to the capital, Port Vila, which is situated on another island. We were both in the capital at the time and when I asked for news from Pentecost I was told:

- (40) *mat-an* *m=we*
 die-NOMLZ 3SG.IPFV=lie
 ‘There’s been a death.’ (Lit. ‘A dead person is lying down.’)

Turning now to the positions of inanimates, for Ameka & Levinson (2007: 849) the use of the positional verb ‘lie’ occurs where the main axis of the Figure is horizontal. For Newman (2002) horizontal elongation is necessary. Many examples of *we* in the corpus reflect this arrangement: a mat spread out on the ground, a cloth on a table (41) a shoe (42), a spoon (43) and when a guitar, or taro, or banana, or yam is set on the floor. However, other examples are less reminiscent of a horizontal axis or horizontal elongation: the round lid of a container on a surface (when on a container it can be said to ‘sit’ (section 4.4.2), or a rope coiled on a tree stump (44). If the support relationship is taken into consideration, then similarities can be seen: all the Figures rely heavily on the Ground for support to maintain their position. The difference between the occurrences of

the lid could then be accounted for by the different types of support required in each instance. When on the container, the lid has a base and thus stably supports itself and so occurs with *do* ‘sit’. However, when it is on the floor then it relies on the Ground (the floor) for support and thus its location is expressed by *we* ‘lie’.

- (41) *ul a=we ra -n bletpav*
 cloth 3SG.IPFV=lie top-CONST table
 ‘The cloth was/lay on the table.’ (2008-12-02-00120au-cw)

- (42) *blanvanlie-q m=we ra-n zan*
 shoe-1SG.EXCL.POSS 3SG.IPFV=lie top-CONST ground
 ‘My shoe is (lying) on the ground.’ (2008-12-01-00109au-cw)

- (43) *asiav na-n anian a=we va-n*
 spoon ASSOC-CONST food 3SG.PFV=lie under-CONST
vnu-n ol
 skin coconut
 ‘The spoon was/lay under the coconut skin.’

- (44) *ao a=kelsene-an a=we ra-n mapwiesz*
 rope 3SG.PFV=roll.TR-NOMLZ 3SG.PFV=lie top-CONST stump
na-n udia
 ASSOC-CONST wood
 ‘The coiled rope was/lay on the tree stump.’

Another common use of *we* ‘lie’ is with topographical features such as islands, lakes, (though *sol* ‘pool’ is used here too) and rivers, although not with hills or mountains. When I was asking informants about the location of various islands and towns with respect to Baravet, there was a tendency to start with the general verb *du* and proceed to using *we* ‘lie’. Considering that many islands in Vanuatu are mountainous and volcanic, some conical in shape, with the sides of the islands tapering up towards the crater, one

could imagine the use of ‘sit’ in locational constructions, given the large base of the island, or even ‘stand’, however neither of these verbs were chosen. The dimensions of the islands do not correspond then to the criteria of either Ameka & Levinson or Newman. For example, Ambae one of Pentecost’s closest neighbours, has a tapering shape which is visible from the Baravet coastline

- (45) *Ambae* *m=we* *batniaq=dae*
 A 3SG.IPFV=lie downhill=DIST
 ‘Ambae is/lies out to sea, downhillwards that way.’

Elongated two-dimensional entities are described as being in a lying position; the existence or location of roads and paths occur in constructions predicated with *we* ‘lie’ (46)⁸. The dimensions of such entities, according to the criteria of Ameka & Levinson and Newman correspond to coding by *we* ‘lie’. Also, the notion of support, specifically that here, the Ground entirely supports the Figure, corresponds to the use of *we* ‘lie’. Long, thin paths or roads are similar to the shapes of vines or ropes and in (47) an uncoiled rope is stretched out on the floor (compare with example 44 which also uses ‘lie’). In (48) however, the position of a washing line similarly extended is described, yet suspended from two posts, and *ka* ‘hang’ is used. Here, the dimensions of the Figures are identical, but the posturals selected are different. The spatial event differs only with respect to the support needed for the Figure to maintain its posture: *we* ‘lie’ is used when the ground provides the support, *ka* ‘hang’ when the support is provided from above. With respect to Newman’s ‘force-dynamics’ then this position coded by *ka* ‘hang’ requires a high degree of control which would normally pattern with *pet* ‘stand’, however *ka* ‘hang’, a positional verb, is unlike the postural verbs and does not correspond to this notion of degree of support.

⁸ Note the use of the future form of the second person dual tense-aspect marking in the second clause. Many Ske speakers use a future tense subject marker for a perfective meaning. See subject pronouns Chapter 2.6.1.

(46) *sal a=we kngie be dria=ba ka kzót*
 path 3SG.PFV=lie only but 2DU.FUT=go instead some place
 ‘There was a path, but you two went some other place instead.’ (ec-b9-20)

(47) *ao m=we lia-n udia*
 rope 3SG.IPFV=lie side-CONST wood
 ‘The rope is lying over the tree stump.’

(48) *ao mwe=kka lia-n udia aru*
 rope 3SG.IPFV=REDUP.hang side-CONST wood two
 ‘The rope is hanging along two wooden posts.’

Further examples of *we* ‘lie’ where the Figure does not correspond to the long-axis or elongated shape-type in the literature, were offered when a 2D entity such as writing or an image is vertical by dent of being located on a Ground which is vertical. In (49) a piece of paper hangs from a nail in a tree, like a wanted poster, bearing the image of a man’s head. The man’s head ‘lies’ on the paper:

(49) *ae sqe robwet na-n*
 CONJ leaf book ASSOC-CONST
ti~tih-an=ned, m=ka lia-n,
 REDUP~write-NOMLZ=PROX1 3SG.IPFV=hang side-3SG.POSS
ae lamza-n azó m=we lia-n.
 and face-CONST man 3SG.IPFV=lie side-3SG.POSS
 ‘And there is a paper hanging from it, and a person’s face is (lying) on it.’

When the page or surface is upright, *pet* ‘stand’ is not selected as this would infer projection away from the Ground by the Figure (section 4.4.4). Objects with little difference in length-width, or whose main axis is difficult to discern, including spherical objects such as an orange (50) or a football, occur in the corpus with the posturals *we*, *do* and *pet*. Most consultants rejected the use of *pet* ‘stand’ on the grounds that the Figure did not have legs. The consultant who gave this response may however have been

emphasising the ‘sides’ of the balls rather than the underside in contact with the floor since there was side-to-side contact between them (51). Again, we find that the use of the posturals overlap, but here the objects are either familiar (whilst an orange is introduced produce), or have familiar dimensions. The explanation may again rest with the idea of Support; some speakers may find that these round objects do have a base, requiring less support to maintain their position, whereas others may make the assessment that their shape means that they cannot reliably support themselves and thus require assistance from the Ground, and use *we* ‘lie’.

- (50) *vwómwól aru mra=we knie ót alvwal*
orange two 3DU.IPFV=lie only place one
‘The two orange are just (lying) in the same place.’ (2009-05-01-00476au-otcb)

- (51) *ara=pet lia-n qa*
2DU.PFV=stand side-CONST PRON
‘They are standing/ propped against each other.’ (Not lying against each other).

We ‘lie’ is selected when the Figure is suspended in its Ground and is able to move, rather than being rigidly located in a place: such as clouds in the sky, celestial bodies, or fish in water (52) when there is containment or support in or on liquid or gas. Again the dimensions of the Figure may differ, but the constant factor is the high-degree of support required, not just from below but also all around. The existential verb *du* can also be used in this context.

- (52) *mahlok m=we la zeh*
fish 3SG.IPFV=lie at sea
‘Fish are in the sea.’

The corpus reveals further interesting examples with *we* ‘lie’ where the configurations and indeed dimensions of the Figure are not easily discernible. Albeit that the Figure could be said to be suspended in air in (53), the Figure (air) and the Ground (wind) are

identical. Of most importance is that the Figure is entirely reliant on the Ground, water, or air/gravity to maintain its position.

- (53) *a=vé* *nanó* *ae* *zeh* *amamzik* *ae* *leng*
 3SG.IPFV=COP yesterday CONJ sea big.one CONJ wind
kare *a=we*
 neg 3SG.PFV=lie
 ‘Yesterday, the sea was huge (i.e. there were big waves) but there was no wind.’
 (nm-b9-18)

The uses of *we* ‘lie’ given so far in some cases correspond but also sometimes deviate from the dimensions which Levinson & Ameka (2007) and Newman (2002) propose should trigger the use of the ‘lie’ postional, which then poses difficulties for the argument that the dimensions of the Figure decide the positional verb. Typically the Figures have been supported by a horizontal Ground (except for the writing (49)) which could then account for or confuse the question as to whether it is the horizontal axis of the Figure or the horizontal Ground which leads to the selection of the positional. However, the following examples illustrate that the Ground does not need to be horizontal: spatial events where the Ground is vertical or inclined can also co-occur with ‘lie’. Two such examples are in (54) where a plaster is located on a leg of a person who is in an upright position and in (55) where a log is on a hillside. Importantly, the tree must have been felled or have fallen to be described as ‘lying’; if it were still rooted and upright *pet* ‘stand’ would be used instead.

- (54) *ro-n* *oza* *m=we* *lia-n* *sihlie-q*
 leaf-CONST bush 3SG.IPFV=lie side-CONST leg-1SG.EXCL.POSS
 ‘The plaster is (lying) on his/her leg.’

- (55) *udia* *m=we* *lia-n* *téng*
 wood 3SG.IPFV=lie side-CONST hill
 ‘The tree is (lying) on the hillside.’

It could be argued that what is coded is the canonical or non-canonical position of the Figure since it is the case that objects which, when in canonical position, are said to *pet* ‘stand’ or *do* ‘sit’ are described as ‘lying’ when in non-canonical position; objects such as a basket (56) or a table (57).

- (56) *ze tobang m=we, kare m=do pmiah zvan,*
 ART basket 3SG.IPFV=lie, NEG 3SG.IPFV=sit well down,
tobang nan=ned be m=we zvan,
 basket ASSOC-CONST=PROX1 but 3SG.IPFV=lie down,
vwa-n mwe=krav kare mwe=krav ba zvan
 lid-3SG.POSS 3SG.IPFV=look, NEG 3SG.IPFV=look go down
pmiah be a=mwo we ra-n mwari-n
 well but 3SG.PFV=IRR lie top-3SG.POSS edge-3SG.POSS
kngie
 only

‘A basket is lying, it’s not sitting on the ground properly, but this basket here is lying down, it’s opening is facing, it’s not facing down properly, but it must be just lying on its side.’

- (57) *qane sihlie-n aviet de=krav ba mre, ae*
 if leg-3SG.POSS four 3SG.FUT=look go up, CONJ
m=we palil ra-n beveh
 3SG.IPFV=lie wrong way top-CONST grass

‘If its four legs are facing up, then it lies upside down on the grass.’

(mrtm-b17-155)

Therefore the canonical position of the plaster (54) is one of ‘lying’ rather than standing. So, here, regardless of the vertical or horizontal orientation of the Ground, since the topological relation is identical, albeit rotated by 90 degrees, it can still be said to ‘lie’. Moving on to (55), the canonical position of a tree would be to ‘stand’ in Ske if it were healthy, growing and rooted to the earth. It is possible to argue that with the topography

of the island being generally hilly terrain (although flat ground is common on the coasts, but less so in the interior) that the notion that a Ground has to be flat for an entity to be able to ‘lie’, is counter-intuitive. However, this does not provide adequate explanation when the configurations of *pet* are described in the next section (4.4.4).

A further argument could be that the bound relational noun *lia* ‘side’ has a role in the selection of *we* ‘lie’, such that an elongated edge of a Ground is in contact with the elongated edge of a Figure. However *we* ‘lie’ and *lia* ‘side’ do not always occur together and *lia* also occurs with other predicates.

The conditions which best satisfy the requirements for the selection of *we* ‘lie’ in Ske is where the Figure is wholly reliant on the Ground for support to maintain a stable position. The reason for this requirement of support arises by dint of the Figure’s not having a base, of having a structure lacking in rigidity, or where the kind of canonical support relation it has with the Ground (it has legs, is inserted in the Ground, has a base, etc.) is not shared when the Figure is not in canonical position. In such a way, rather than talking about canonical or non-canonical positions of Figures, we should think in terms of canonical or non-canonical support relations when it comes to selection of positionals in Ske.

We move on now to describe the spatial relations coded by *pet* ‘stand’ which, similar to the discussion of *we* ‘lie’ above, on one hand fit the proposals of Ameka & Levinson (2009) and Newman (2007) and, on the other, contradict them. Further oppositions between *we* ‘lie’ and *pet* ‘stand’ will be outlined and the contrasting spatial events they code will be clarified.

4.4.4 Semantics of *pet* ‘stand’

According to the literature, the ‘stand’ postural codes the following configurations; with greater attention paid to the dimensions of the Figure, Ameka & Levinson (2007: 859) find this is ‘when the long axis is canonically vertical’ but with anthropomorphic extensions of the postural verbs at the fore, Newman (2002: 2) states that there should be

‘an upright vertical elongation’. A fence is said to ‘stand’ in Ske, as is an umbrella (58) when positioned with its long axis upright against a wall. Both examples fit the anthropomorphic extension argument as well as the Figure-centric argument offered here.

- (58) *sungsung=ne* *m=pet* *lia-n* *gilgilkor*
 umbrella=PROX2 3SG.IPFV=stand side-3SG.POSS bamboo.wall
 ‘This umbrella is standing against the wall.’ (2008-11-12-00047au-ek)

The ‘stand’ postural *pet* can be used for both animate and inanimate Figures. In support of both arguments again, entities such as trees (59) are always described as standing when rooted to the earth. Animate Figures with legs, such as cows and pigs or indeed humans (60), are located with *pet* when they are upright.

- (59) *udia* *a=pet* *bwa-n* *téng*
 wood 3SG.PFV=stand head-CONST hill
 ‘The tree was (standing) on the hill.’ (2008-12-01-00109au-cw)

- (60) *ara=pet~pet* *ra-n* *zivzak,* *a=mwo* *bé*
 3DU.PFV=REDUP~stand top-CONST thing 3SG.PFV=IRR COP
 vet dak,
 stone perhaps
 ‘They (two) are standing on something, it could be a stone, perhaps?’
 (2009-05-12-00541-au-ptjt)

As mentioned previously, some inanimate Figures either with legs, like tables, or a kind of base on which the Figure is raised from the ground, such as the tyres of a truck (61), and a cup on a stand or coaster (62) or not on a base (63), show overlapping constructions. They sometimes occur with *do* ‘sit’ and with *pet* ‘stand’ too. Of relevance here is that the main axis of the Figure is not necessarily consistent with the assertion of Ameka & Levinson with respect to the ‘stand’ positional: a Figure with a main vertical

axis may occur with *do* or *pet*, but *pet* can also describe the location of an entity, such as a truck, whose main axis is horizontal.

- (61) *ae sihlie-n tagaviet ne m=pet,*
 CONJ leg-CONST four REL 3SG.IPFV=stand
ae m=pet me pasira-n or
 CONJ 3SG.IPFV=stand come other.side-CONST fence
 ‘And the truck that’s (standing) there, it’s (standing) on the side of the fence towards us.’

- (62) *glas m=pet ra-n watno-n*
 glass 3SG.IPFV=stand top-CONST place-3SG.POSS
 ‘The glass is (standing) on a coaster.’ ()

- (63) *lah m=do ra-n bletpav*
 cup 3SG.POSS=sit top-CONST table
 ‘The cup is (sitting) on the table.’ (mrtm-b17-155)

There are further categorical examples in the corpus which illustrate that *pet* ‘stand’ occurs in contexts which do not fit with the explanations given in the literature above. Picture 39 from the BowPed Picture series, where a man has a cigarette in his mouth (Figure 4.1) prompted the response (64). After finding that *pet* was used in this context I explored the configuration further and examples such as (65) were elicited, in which a short, perhaps 10cm-long twig, with leaves and a few chilli peppers, had been lodged into the thatch roof of a consultant’s kitchen, handily placed for cooking with when required. The thatch roof of the kitchens can extend very close to the ground and, in this case, the chilli pepper branch had been placed at head height, not hanging down from the ceiling, but simply protruding horizontally from one of the layers of thatch (Figure 4.2). The configurations involving the chilli stalk and the cigarette involve a Figure which is approximately horizontal, protruding from a vertical or inclined Ground.

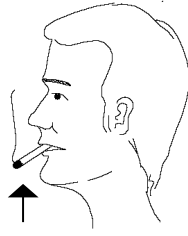


Figure 4.1 Cigarette in Man's Mouth (BowPed Picture 39)

- (64) *sonbienab* *a=pet* *lalvwa-n*
 cigarette 3SG.PFV=stand mouth-3SG.POSS
 'The cigarette was (standing) in his mouth.' (2008-12-02-00130au-cw)

- (65) *wabangvang* *m=pet* *lo-n* *skor*
 chilli 3SG.IPFV=stand inside-CONST thatch.roof
 'The chilli is standing out (in) the thatch roof.' (2008-12-01-00101au-cw)

In (66), *pet* locates a small knife which had been stuck into the bamboo wall in an identical manner to the chilli stalk. Here, however, the configuration between Figure and Ground is not the same as in (64) and (65) above. Rather than the knife protruding at an angle from the wall, it is in contact with the wall from handle to tip.

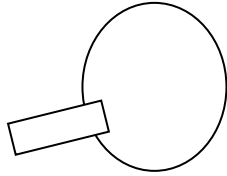
- (66) *azio* *tés* *m=pet* *lia-n* *gilgilkor*
 knife small 3SG.IPFV=stand side-CONST bamboo wall
 'The small knife was standing against the bamboo wall.'
 (2008-12-01-00115au-cw)

What is clear is that the bound relational noun is key to a full understanding of the topological relation between Figure and Ground: *lo* 'insides' codes containment and *lia* 'side' codes extended surface contact between Figure and Ground. What is also clear is that *pet* does not necessarily code vertical elongation or verticality of the main axis, instead, *pet* 'stand' is constant only with respect to the manner with which the objects are

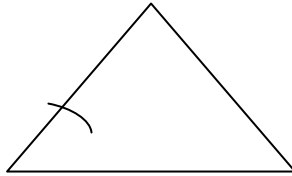
supported. Their rigid structure allows for some independent means of support, but their being fixed into the Ground also helps them to maintain their positions. Below are three diagrams of the scenes described in (64, 65 and 66). The first row of diagrams shows simple representations of: in (1a) the man's face and the cigarette, in (2a) the roof and the chilli stalk in the roof, and in (3a) the vertical wall and the knife. The diagrams in the second row represent the same scenes in a more abstract way. In each diagram the double-headed arrow represents the Ground and the single-headed arrow represents the Figure. Notice that in each, the Figure is inserted some way into the Ground. The positional verb and the bound relational noun or body-part term⁹ used are noted below the representations.

Figure 4.2 Representations of Some Configurations Coded with *pet* 'stand'

1a.Cigarette in mouth



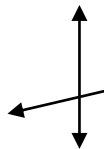
2a.Chilli in thatch roof



3a.Knife in wall

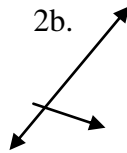


1b.



pet + body part

2b.



pet + *lo-n*

3b.



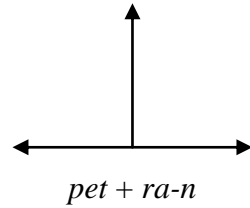
pet + *lia-n*

Adding now the previously established usage of *pet*, where an entity with vertical elongation is located on a horizontal Ground, we have the following representation: when

⁹ *Lalywan* 'mouth' is a fossilised compound analysable as *lal* 'at' and *vwa-n* 'mouth/opening/lid-3SG.POSS'. It is not preceded by a bound relational noun in a locative phrase, already having locative semantics of 'at the mouth/opening'.

a person or object with legs or a base such as a table or a truck, are in upright canonical position, shown below:

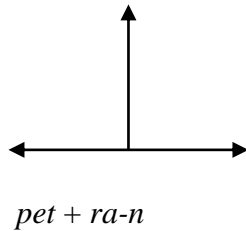
Figure 4.3 Representation of Figure with base, coded by *pet*



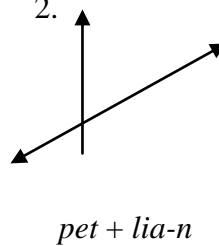
Also included in the list of configurations for which *pet* is selected are the representations below, where the roots of a plant or tree hold the Figure in a vertical position. This could be on a hillside, *lia-n teng* ‘along the hill’, or on a flat surface, *ra-n zan* ‘on the ground’, as in examples (59) and (60) given above and represented in Figure 4.4 below. Example (59) corresponds to diagram 1 and (60) corresponds to diagram 2.

Figure 4.4 Representations of Figure with roots to hold it in place, coded by *pet*

1.



2.



Between the five diagrams above, which all represent a use of *pet*, the following configurations are found. They are summarized in Table 4.3 below.

Table 4.3 Comparison of Configurations coded by *pet* ‘stand’

	cigarette	chilli	knife	tree	tree	man
Postural	<i>pet</i>	<i>pet</i>	<i>pet</i>	<i>pet</i>	<i>pet</i>	<i>pet</i>
Ground	vertical	inclined	vertical	horizontal	inclined	vertical
Figure axis	long axis is horizontal	long axis is horizontal	long axis is inclined	long axis is vertical	long axis is vertical	long axis vertical
Spatial relation	+ attachment of projecting Figure to vertical Ground	+ attachment of projecting Figure to inclined Ground ¹⁰	+ attachment of projecting Figure to vertical Ground	+ attachment of projecting Figure to horizontal Ground	+ attachment of projecting Figure to inclined Ground	+ support from horizontal Ground
Relational noun	-	<i>lo-n</i> ‘inside’	<i>lia-n</i> ‘side’	<i>ra-n</i> ‘top’	<i>lia-n</i> ‘side’	<i>ra-n</i> ‘top’
Support	+low level of support from Ground	+low level of support from Ground	+low level of support from Ground	+low level of support from Ground	+low level of support from Ground	+low level of support from Ground

Before concluding this section, let us consider *we* ‘lie’, one of the postural verbs in opposition to *pet*, and when it occurs with Figures that occur with *pet*, such as those in the table above. If a Figure which, when in a position which requires canonical support (such as when a table is upright table, or a tree or man is standing) is not in canonical support position (for example when the table is upside down with legs in the air (repeated in 67), a man is sleeping, or a tree has been felled and is located on a hillside (68)) the positional verb used is *we*. However the canonical support relation between certain Figures and Grounds, such as a cigarette, may be harder to establish, yet it can still occur with both *pet* as seen above, and *we* ‘lie’ (69).

¹⁰ Note that in Levinson & Wilkins (2006: 9-10) a further Ground angle opposition in addition to horizontal and vertical (whether the spatial relation is one of support or attachment) is not described.

(67) *qa ne sihlie-n aviet de=krav ba mre ae*
 PRON REL leg-3SG.POSS four 3SG.FUT=look go up CONJ
m=we palil ra-n bevleh
 3SG.IPFV=lie wrong way on-CONST grass
 ‘If its four legs were facing upwards, then it’s lying upside down on the grass.’
 (mrtm-b17-155)

(68) *udia m=we lia-n téng*
 wood 3SG.IPFV=lie side-CONST hill
 ‘The tree is lying on the hill.’

(69) *sonbienab m=we ra-n bletpav*
 cigarette 3SG.IPFV=lie on-CONST table
 ‘The cigarette is lying on the table.’

In (68) and (69) the horizontal, or near horizontal position of the cigarette is identical, yet the postural verb is different; the difference is found in the way the position is maintained. In (69) the table supports the cigarette so that it ‘lies’ on it, but in (69) no such support from below is provided and the cigarette position is maintained by tension and insertion in the person’s mouth.

The configurations described above are laid out in the Table 4.4 below.

Table 4.4 Comparison of Configurations coded by *we* ‘lie’

	cigarette	table	tree
positional	<i>we</i>	<i>we</i>	<i>we</i>
Figure axis	long axis is horizontal ?canonical position	long axis is horizontal -canonical position	long axis is inclined/parallel to Ground -canonical position
Ground	horizontal	horizontal	inclined
Spatial relation	+support from below	+support from below	+support from below (non vertical / horizontal surface)
Relational noun	<i>ra-n</i> ‘top’	<i>ra-n</i> ‘top’	<i>lia-n</i> ‘side’
Support level	+high level of support from Ground	+high level of support from Ground	+high level of support from Ground

Comparing Table 4.3 with Table 4.4 it is clear that the axis of the Figure can be horizontal or inclined and appear with both *we* ‘lie’ and *pet* ‘stand’. Although vertical Figures tend not to occur with *we* ‘lie’, yet *do* ‘sit’ and *pet* ‘stand’ are often triggered in such events. Concerning the inclination of the Ground, horizontal, vertical and inclined Grounds can occur with *we* ‘lie’ and *pet* ‘stand’. Canonical and non-canonical positions of Figures do not adequately explain the use of the different positional, since the canonical position of some Figures may be difficult to establish. The constant element in each table is the level of support; where canonical positions can be established, then canonical and non-canonical support relations are relevant. Elsewhere, where this is unclear, unfamiliar, or untraditional, speakers evaluate how the Figure is maintaining its position and choose the appropriate positional.

4.4.5 Semantics of *ka* ‘hang’

As has been seen with the other locative predicates described above, configurations coded by *ka* ‘hang’ show similarities as well as differences with the predictions in the literature on postural and positional verbs. Firstly, that Ske opposes ‘hang’ from other

positional verbs, including *sok* ‘be grouped’ means that Ske already does not fit the anthropomorphic theme set out by Newman (2002). In Ske ‘hanging’ entities are leaves, fruit, neck adornments and ropes, but humans are rarely located with *ka*, though other animates may be. According to Ameka & Levinson (2007: 859) the ‘hang’ positional in Type II languages will generally describe configurations in which the Figure is ‘not supported from below’. After the section on *pet* ‘stand’ it should be clear that ‘not supported from below’ is not a sufficiently finely-grained distinction for selection of a positional in Ske, particularly so since both *pet* ‘stand’ and *ka* ‘hang’ can be used to locate entities with this configuration.

Below, examples of entities located using constructions with *ka* ‘hang’ will be detailed and the configurations the locative verb codes, in opposition to the other positionals will be given.

Firstly, many examples of *ka* ‘hang’ in the corpus code a configuration in which the Figure is supported from above, such as when a lamp hangs from a hook or from a natangura roof (70); when clothes are drying on a line (71); and, when a basket is hanging by its long rope handle from a wall (72). It often occurs when describing leaves or fruit on trees (73). An example in the corpus from a Men and Trees description shows *ka* being used to locate and position a body part, in this case a man’s arm, hanging by his side (74).

(70) *ser* *a=ka* *mre* *ra-n* *bletpav*
 lantern 3SG.PFV=hang up top-CONST table
 ‘The lamp was (hanging) above the table.’ (2008-12-01-00103au-cw)

(71) *ul* *be=ka* *ra-n/lia-n* *ao*
 clothes 3PL.IPFV=hang on-CONST/side-CONST rope
 ‘The clothes are (hanging) on the line.’ (2008-12-02-00128au-cw)

- (72) *tobang a=ka lia-n aqul*
 basket 3SG.PFV=hang side-CONST hook
 ‘The basket was (hanging) on the hook.’ (2008-12-01-00102au-cw)
- (73) *bze m=ka lia-n rez na-n udia*
 breadfruit 3SG.IPFV=hang side-CONST branch ASSOC-CONST tree
 ‘The breadfruit is (hanging) on the branch.’ (2008-12-01-00109au-cw)
- (74) *ara=krav ba la zeh [..] pasria-n ngia-r*
 3DU.PFV=look go LOC sea [..] other side-CONST hand-3PL.POSS
a=ka tonon ba zvan
 3SG.PFV=hang straight go down
 ‘They are facing the sea, and one of their hands was (hanging) straight down.’

All the objects in (71-74) above are suspended either via an inherent join (leaves on a tree, the point where fruit is attached to the branch or an arm in a socket) or else suspended by use of another implement (pegs, in the case of the clothes on the line, a nail or hook for the basket and lamp). None of them are attached via insertion into the Ground, as is the case when *pet* ‘stand’ codes the configuration of attachment of a Figure projecting from the Ground, which then enables the Ground to hold the Figure in place, (though with a degree of tension) and all are free to move or swing whilst remaining attached.

Another configuration coded by *ka* ‘hang’ is attachment by a cord (75). An example of this configuration was observed when the whereabouts of a pig for the opening ceremony of a newly-tarmaced airport was enquired after. A location which may be an example of either support from above or attachment to a cord, or similar, describes a spider on a web (76).

- (75) *bo m=ka lia-n ao*
 pig 3SG.IPFV=hang side-CONST rope
 ‘The pig is (hanging) on the rope.’ (i.e. The pig is tethered to the rope.)

- (76) *tabaria a=ka lia-n wariah*
 spider 3SG.PFV=hang side-CONST web
 ‘The spider was (hanging) on the web.’ (2008-12-01-00101au-cw)

Clothes or hats are located on a person with the verb ‘wear/block’ *kro*, but objects worn as adornments including necklaces or flower chains (77), or rings (78), can be located on or around a Ground using *ka*:

- (77) *ngiek nier be=ka lia-r*
 flower PL 3SG.IPFV=hang side-3PL.POSS
 ‘The flower necklace is hanging on them.’ (i.e. ‘around their necks’)

- (78) *ao m=ka lia-n baruhngia-n azó=ne*
 rope 3SG.IPFV=hang side-CONST finger-CONST man=PROX2
 ‘A ring is (hanging) on this person’s finger.’ (2009-04-24-00445au-jt)

Ske exhibits an interesting use of *ka* ‘hang’ which does not tally with the dimension contrasts discussed above, nor with the notions of support, at least at first glance. A very common occurrence of *ka* in the corpus is in combination with a nominal expression such as ‘house’ or ‘store’ to locate a building. One would think that the dimensions of a house, a compact shape being typically one-storey structures where there is often either no major axis to speak of, or the horizontal axis is more salient, would cause either *do* ‘sit’ or *we* ‘lie’ to be selected. In terms of support relations, *do* ‘stand’ seems applicable since one would imagine a building requires a low level of assistance to maintain a stable position. However, *ka* ‘hang’ is often used to locate buildings, regardless too of the angle of the Ground: the building may be located on a hillside (79) or on a flat piece of land, which in (80) was adjacent to the house we were in at the time of speaking.

- (79) *watno-n* *gel~gel-an* *no-n* *Jonas*
 place-CONST REDUP~buy.INTR-NOMLZ CL.GEN-CONST J
m=ka *pasria-n=ne*
 3SG.IPFV=hang other side-3SG.POSS=PROX2
 ‘Jonas’ shop is (hanging) on the other side (of the house) here.’ (pt-b8-28)

- (80) *watno-n* *gel~gel-an* *no-n* *Tony* *ae*
 place-CONST REDUP~buy.INTR-NOMLZ CL.GEN-CONST T CONJ
m=ka *imriaq* *na-n* *restaran*
 3SG.IPFV-hang uphillwards ASSOC-CONST restaurant
no-n *Naomi*
 CL.GEN-CONST N
 ‘Tony’s store is (hanging) uphill of Naomi’s restaurant.’ (pt-b8-9)

With respect to locating a house with *ka* it is possible that one must ‘simply know’, as Ameka and Levinson phrase it with respect to Yéî Dnye and its nominal-positional collocations (Ameka & Levinson 2007: 847), that ‘house’ and *ka* collocate in Ske. Alternatively, there may be associations with the method of constructing a house and the parts, which contribute to its being a conceptual whole, and the ‘hang’ postural. A house is a shelter and the ‘hanging’ of the natangura roof (a transitive verb translated by speakers as ‘hang’, but not related to *ka*, is used for this action) completes the building, transforming it from a cluster of posts to a house, store or church. There is no floor or base to provide stable support in a traditional house, only walls and a roof, made of bamboo and natangura, both of which are attached to vertical or horizontal posts and are not inserted or secured to the floor in any way. Of course, potentially there may be other, possibly cultural, motivations the significance of which have been lost today.

Whatever the case may be regarding the reasons behind the usage of *ka* ‘hang’ and buildings, it is clear that with *ka* as one of the set of positionals, Ske is unlike the findings in the collections of Newman (2002) in that it does not have anthropocentric origins. Also, *ka* in Ske again exhibits different configurational semantics to ‘hang’ verbs

asserted in Ameka & Levinson (2007). Its use with buildings in Ske goes contrary to their proposal, unless of course the specifics of building-construction in Melanesia rule them out from the ‘support from below’ category of entities. The type of support relationship *ka* typically codes, in contrast to the other positionals, is not associated with a ‘level of support’ but rather a place of support (from above) and may include a degree of freedom of movement. If the reasoning provided above (for the ‘hang’ postural for buildings being motivated by construction methods which do not require a base) is correct, then all entities located with ‘hang’ encode support from above. If not, then there is an anomaly in the analysis, and this anomaly is restricted to a single semantic domain of built structures, including churches, kitchens, the land-diving towers, shops and mobile-phone masts.

4.4.6 Semantics of *sok* ‘be grouped’

Inclusion of *sok* ‘be grouped’ as a locative verb which contrasts with other members of the set shows again, like with *ka*, that Ske does not fit the mold with respect to the findings in Newman (2002) that locative verbs are anthropocentric in origin. Furthermore, *sok* never takes an animate entity as its grammatical subject.

In common with the existential verb *du*, but unlike the other positional verbs, its semantics do not express a configurational relationship between Figure and Ground. Instead, *sok* opposes the other verbs as it locates non-singular entities, although it is not obligatorily used in this context. It tends to be used when the number of entities or the fact they are heaped or collected together is in focus, such as a pair of shoes, a pile of plates, or a number of beads being on a necklace.

In (81) washed clothes had been laid out to dry on the sloping thatch roof of a kitchen; (82) was the response from Pastor Timothy outside the house, when Jonas, from inside, asked if anyone had seen his shoes; and, in (83) Lessian was talking about the dishes draining in the dryer next to the sink.

- (81) *be=sok* *ra-n* *skor*
 3PL.IPFV=be.grouped on-CONST palm.thatch
 ‘They are gathered on the thatch roof.’ (pt-b9-23)
- (82) *mra=sok* *ót* *vwóv* *lal* *im,* *ba* *basiv*
 3DU.IPFV=be.grouped place outside at house go up
 ‘They are outside the house, to the north.’
- (83) *be=sok* *lo-n* *avzak=dae*
 3PL.IPFV=be.grouped inside-CONST specific.thing=DIST
 ‘They’re in that thing there.’

In instances when *sok* was used to locate bananas (84), footballs, or eggs (85) it was marked by a non-singular subject pronoun, either dual or plural number. In the corpus it also occurs with nominals such as ‘rice’ (86), ‘earth’ (87) and ‘food’ (88) (here referring to various dishes available rather than one large portion of, say, laplap) and with a nominal translated as ‘necklace’ (89), which a consultant told me was possible since the necklace is made up of multiple beads or shells. Interestingly, in these cases it takes a singular subject pronoun. There is no record in the corpus of *sok* occurring with liquids. There is preliminary evidence here to suggest that Ske classifies its nominals differently with regards to their countability and that this is reflected in number marking on verbs: when locating objects with the locative verb *sok*, countable nouns require non-singular marking and mass nouns require singular marking. Further research is needed to verify this and a complete list of nominals which participate in the two classes can then be made.

- (84) *aziol* *be=sok* *ae* *aru* *mra=krav*
 three 3PL.IPFV=be.grouped CONJ two 3DU.IPFV=look
 me *ót* *alvwal*
 come place one
 ‘There are three (bananas) and two are facing this way.’
 (2009-05-12-00541-au-ptjt)

(85) *wedliomwu dak? ave=sok lo-n*
 egg.chicken perhaps? 3PL.PFV=be.grouped inside-CONST
ze sque o ske, 'plet'
 ART leaf or what, 'plate'
 'Chicken eggs, perhaps? They were gathered on a leaf-plate or what, a 'plate'.'
 (2009-04-24-00436au-pt)

(86) *wedliobubut m=sok lo-n*
 egg.ant 3SG.IPFV=be.grouped inside-3SG.POSS
 'Rice is (gathered) in it.' (2009-05-09-00531-au-htab)

(87) *povohe ngiek, zan m=sok*
 near flower earth 3SG.IPFV=be.grouped
 'Near the flower, there is some earth.' (2009-05-12-00539-au-ptjt)

(88) *a-n anian m=sok en=nam*
 CL.ED-3SG.POSS food 3SG.IPFV=be.grouped there=PROX.ADDR
 'His food is (gathered) near you.'

(89) *siom a=sok zvan*
 necklace 3SG.PFV=be.grouped down
 'A necklace was (gathered) on the floor.' (2009-05-01-00462au-cwrbr)

Sok is not semantically rich in that it does not code any configurational information. It can be used in location descriptions where any of the other positionals could be used: the clothes on the roof (81), the flip-flops (82) and the bananas (84) could be located with *we* 'lie'; the dishes in the drainer (83) could take the positional *pet* 'stand'; and the eggs (85) could be said to 'sit' using *do* or 'lie' using *we*.

4.4.7 Semantics of *sol* ‘pool’

The final member of the set of locative predicates in Ske is *sol* ‘pool’. *Sol* is only used to express the location of liquids. Large bodies of water such as the sea cannot be located with *sol*. Also, rivers are never located with *sol*, instead, *sal* ‘flow’ which is not classed as a locative verb¹¹, is used. *Sol* codes static locative information, as the water is not flowing or moving, about small to medium bodies of water. It can be used to locate lakes, rain puddles and spilt water or petrol (90).

- (90) *kzo-n* *benzin* *a=kersek* *ae* *benzin*
 container-CONST petrol 3SG.IPFV=turn.INTR CONJ petrol
 m=sol *ra-n* *sal*
 3SG.IPFV=pool top-CONST road
 ‘The petrol drum overturned and there is petrol (pooled) on the road.’ (jt-b13-13)

Only the existential verb *du* ‘exist’, which functions as the general locative predicate, can take the place of *sol* in a locative construction. With the exception of *we* ‘lie’ which, notably, is used to locate the ‘sea’, the other locatives have been analysed as coding types of support relationship whereby the Figure requires various levels of support to maintain its position. Liquids are entirely reliant on a Ground to maintain their shape and position and therefore only *we* ‘lie’ and *sol* ‘pool’ are appropriate to code their locations. That *sol* ‘pool’ is used as a locative is a further corroboration of the findings that locative verbs in Ske predominantly code support relations.

4.5 Comparison of Location, Possessive and Existential Clauses in Ske

This section will highlight a few key issues relevant to Ske regarding the well-established link between locative, possessive and existential clauses in languages. Clearly there is abundant literature on this topic but we touch on it only briefly here to acknowledge the link exists also in Ske.

¹¹ *Sal* ‘flow’ is a manner verb and cannot occur as V1 before a directional with the meanings described in section 4.2 of this chapter. In this case, the meaning would be ‘flow in a certain direction’.

Another verb *dok* ‘exist’ is found in Ske which is discounted from the set of locative predicates. It is not a locative verb but it does express the existence of certain entities. *Dok* only occurs in phrases with a non-physical or conceptual entity as its grammatical subject. In fact, in the corpus it is only found with ‘pain’ (91), ‘sound’ (92) and ‘gap’ (93) as its grammatical subjects with this meaning¹².

- (91) *pware-n* *bwa-q* *m=dok*
 pain-3SG.POSS head-1SG.EXCL.POSS 3SG.IPFV=exist
 ‘I have a headache/my head hurts.’ (Lit: ‘My head’s pain exists.’)

- (92) *dlo-n* *ske* *a=zok?*
 sound-CONST what 3SG.PFV=exist
 ‘What was that sound?’

- (93) *lo-n* *minsia-n* *m=dok*
 inside-CONST gap-3SG.POSS 3SG.IPFV=exist
 ‘There is a gap.’ (Lit: ‘Its insides gap/its gap at its insides exists’)

Whilst here *dok* has the function of an existential verb and is therefore apparently similar to *du*, unlike *du* it has restricted use. *Dok* only ever has a presentative function, introducing its grammatical subject (a possessed noun) into the discourse. Also, a locational adjunct never follows a clause where *dok* is the predicate (94). As such, *dok* never occurs in a construction which locates or orients its grammatical subject and it never specifies a configuration or position of the subject with respect to a Ground.

- (94) **pware-n* *m=dok* *lia-n* *sihlie-q*
 pain-3SG.POSS 3SG.IPFV=exist side-CONST leg-SG.EXCL.POSS
 Intended: ‘There’s a pain in my leg.’

¹² Whilst *negative space* is a contrasting notion in topology and ‘gap’ could infer negative space, in practice reference to holes/cracks use different constructions (Levinson 1997). In Ske there is an homophonous verb *dok* ‘cancel’, which may be related in some way with respect to ‘gap’ and the notion of negative space.

Taking the discussion of *dok* as a starting point, we can analyse the functional difference between *dok* and the existential verb and the other locative predicates. Cross-linguistic comparison of the treatment of existential (E), possessive (P) and locative (L) clauses (Clark 1978) showed how languages vary according to how such clauses are expressed, as does Lichtenberk (2002) for Oceanic languages. Payne (2007: 127) includes predicate nominals in this comparison and clauses which express proper inclusion and equation (Chapter 2.3.6.2), since their predicates may overlap with those found in E (95, 96), P (97, 98, 99) and L clauses.

Existence: *du* and *dok*

- (95) *ze vnó m=du kzót ne a=bis*
 ART settlement 3SG.IPFV=exist someplace REL 3SG.PFV=be good
 ‘There is a place somewhere, which is good.’ (b18-1)

- (96) *pware-n m=dok*
 pain-3SG.POSS 3SG.POSS=exist
 ‘There is pain.’ (with the meaning: ‘I’m sorry’).

Possession: *du* and *dok*

- (97) *dzo-n Ron aru m=du*
 child-3SG.POSS R two 3SG.IPFV=exist
 ‘Ron has two children.’ (Lit: ‘Ron’s two children exist’.)

- (98) *pware-n sihlie-q m=dok*
 pain-3SG.POSS leg-1SG.POSS 3SG.IPFV=exist
 ‘There’s a pain in my leg.’ (Lit: ‘My leg’s pain exists/my leg has pain.’)

In Table 4.5 predicates found in existential, possessive and locational constructions are summarised, with English equivalents for comparison.

Table 4.5 Predicate used in Existential, Possessive and Locational Phrases

	Predicate Nom	E	P	L
Ske	<i>bé</i> ‘copular’ (proper inclusion only as equational are verbless)	<i>du</i> ‘exist’ <i>dok</i> ‘exist’ (and other locative predicates, see Chapter 4)	<i>du</i> ‘exist’ <i>dok</i> ‘exist’	<i>du</i> ‘exist’, <i>sok</i> ‘be loc.many’, <i>we</i> ‘lie’, <i>pet</i> ‘stand’, <i>do</i> ‘stand’, <i>ka</i> ‘hang’, <i>sol</i> ‘pool’
English	be (equation and proper inclusion)	be	be/have	be

Table 4.5 above illustrates how Ske distinguishes between equational clauses, which are verbless, and proper inclusion clauses, which are expressed using the copular verb. It shows also that a distinction is made between proper inclusion clauses and E, P, L clauses. They are grouped together as all concepts can be expressed by the existential verb *du* ‘exist’. This suggests that whilst these three clause-types have distinct functions, they are conceptually similar. The existential verb *du* can be used across all the clauses although it is less semantically rich in locational clauses than it is in possessive clauses. To clarify, in locational clauses *du* codes a non-specific location, whereas in possessive and existential structures no other lexical item is required in the clause for it to form a predication; the entire meaning of the sentence is expressed in the predicate itself. *Dok* expresses existence in clauses which are possessive in structure. This suggests that there is a continuum of conceptual similarity between the three clauses in Ske and along this scale *du* becomes semantically less rich as illustrated below.

Possessive/Existential Clause →	Predicate locative
<i>du</i> is semantically rich →	<i>du</i> is semantically less rich

This continuum contradicts the impressions of Payne (2007: 113) who finds that the clauses most likely to lack a semantically rich predicate are possessive clauses.

Predicate locative → Existential → Possessive Clauses
 → semantically less rich predicate →

(adapted from Payne 2007: 113)

When used to locate an entity, the other predicate locatives are of course semantically rich, as has been demonstrated in this chapter. These verbs do not occur in possessive sentences but can be used existentially. When used so, they can in fact be semantically richer than when occurring in locative sentences, since not only do they locate, but they also reveal something of the socio-cultural associations with the positions they encode (Table 4.2).

4.6 Summary

This chapter has examined the set of Ske locative predicates to find that there are seven contrastive forms. The contexts in which each of the predicates occur has been analysed in order to discover what motivates their selection. The semantics of the positional verbs is also interesting when compared with the analysis of the dimensions of the Figure which Ameka & Levinson (2007) and Newman (2002) propose motivate the use of a particular positional verb. It has been found that the degree of support required for the Figure to maintain a stable position, and not its dimensions, is the primary motivating force to determine the selection of one of seven available locative predicates in Ske. Analysis of predicate locatives in Ske is of interest to the typology Ameka & Levinson (2007: 863-4) propose because Ske shows properties of both Type III (postural type) and Type II (positional type) languages, although it is most similar to the postural type. Locative predicates express a rich seam of spatial information and instead of being ignored their study can provide valuable insights into frameworks for further investigation of the subject: the analysis of how topological space is conceptualised cross-linguistically.

Chapter 5

A Case Study of Frames of Reference

5.1 Introduction

There are two ways of locating an object in space; one method is to use topological relations, i.e. non-projective relations. Alternatively, spatial Frames of Reference (FoRs), or projective relations can be used. In Chapter 3 topological relations and the BLC were described and in Chapter 4 the focus was on locative predicates. In this chapter, methods of locating objects using FoRs are analysed.

Presented here is a case study of FoR use amongst a cross-section of Ske speakers; FoR use in discourse was analysed in which speakers gave location and orientation descriptions of entities in a stimuli game called Men and Trees (MPI 1993).

This study examines FoR use and FoR preference in Ske speakers and also looks at how FoRs combine, or what I term compositional FoRs. Of particular interest here are the ways that deixis ‘creeps in’ (Levinson 2003, 2004) to spatial expressions. This is examined within a framework proposed by Danziger (2010) and built on by Bohnemeyer (2008) and Bohnemeyer & Levinson (2011). Deixis poses problems for traditional FoR typology and until recently has been excluded from the three-way classification of FoRs despite its ubiquity in the gestures and the language of spatial expressions. Deictic language is commonly used by Oceanic and Polynesian language speakers (Bennardo 2002; Senft 1997, 2004) and has even been found to be the foremost strategy to locate and orient entities (Terrill & Burenhult 2008). Despite this, deictic strategies have not been dealt with in the analysis of FoR use and it has remained unclear how to fit demonstratives and directionals in to FoR typology (ibid). The Men and Trees (MPI 1993) stimuli kit used in this and many other studies (Levinson & Wilkins 2006) and variations thereof (Ann Senghas task) are designed to preclude gesture information and deictic reference (Danziger 2010). However, this and other studies have found that speakers continue to make use of deictic language when using the kit.

This study finds that deictic language in angular spatial referencing constitutes a distinct strategy and can be analysed as use of the direct FoR (Danziger 2010). Moreover, deixis is compositionally promiscuous¹ in that it can combine with other already well-formed angular references and may alter their functions: from orienting to locating an entity in space. The reasoning behind this dispreference for the relative FoR are scrutinized. It is suggested that the relative FoR is unused by Ske speakers not because of the availability of the absolute FoR (Levinson & Wilkins 2006) but rather, that its disuse is due to the large number of bound relational nouns which can combine with deictic expressions in Ske, and also the promiscuous nature of deixis. This offers Ske speakers a wealth of alternative angular expressions already, without needing recourse to a relative FoR.

The chapter is organized as follows. A background to FoR classifications is set out in section 5.2 and the theoretical framework on which the analysis is based is presented. In 5.3 the methodology for eliciting and coding the data is described and location and orientation descriptions are defined here as well. In section 5.4 FoR use in Oceanic languages is discussed and in section 5.5 the data on Ske is presented. Examples detailing how different FoRs and topological relations were expressed by Ske speakers in the task are given here. In 5.6 analysis of the data and implications are provided. Analysis of the functional use of FoRs in location and in orientation descriptions is discussed and statistical data showing FoR preference and function is then presented.

5.2 FoR Theory and Classifications

A spatial frame of reference emerges when, in order to locate an object in space, a perspective from a reference point is taken (Levinson 2003). So for example, we could say, *the ball is on the left of the car* from the perspective of the speaker to locate the ball in Figure 5.1.

¹ I use the term promiscuous here in acknowledgement of Bohnemeyer's (2008) description of Yucatec Maya, which he terms 'referentially promiscuous' on the basis that speakers use a variety of FoRs in spatial expressions.

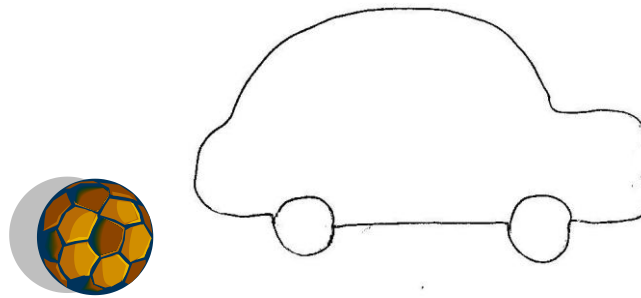


Figure 5.1 Ball and Car

Classes of FoRs can be distinguished on the basis of identifying three components: F (Figure (entity to be located or oriented)), G (Ground (entity in relation to which the Figure is located or oriented)) (Talmy 2000: 312) and the A (Anchor (Levinson 1996), which is the origin of the vector which determines the search domain. The vector moves from the G in the direction determined by the A in order to locate the F. In this way, space is dissected using co-ordinate systems which vary according to how these three basic components are identified. In Figure 5.1, we locate the ball by specifying the car as the G and the speaker as the A. The angle in the direction *on the left* is a projection of the speaker's own body axes onto the ground and the vector moves at this angle from the car to locate the ball. This is shown again in Figure 5.2 with the ball, the car and the SAP whose body axes, the dotted arrow, are mapped onto the car. The co-ordinate system described here is an example of the relative frame of reference.

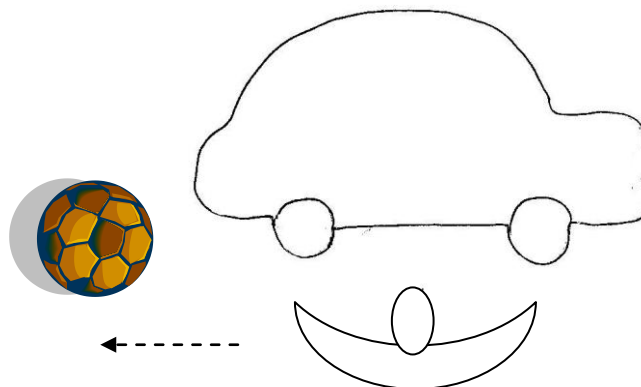


Figure 5.2 Relative FoR: *The ball is on the left of car*

Alternatively, the ball could be located with reference to facets of the Ground. In the same arrangement as Figure 5.1, shown again in Figure 5.3, we may locate the ball by saying *the ball is behind the car*. Here the ball is again the Figure, the car is the Ground and the Anchor is also the car. The car is assessed as having an inherent ‘back’ versus ‘front’ asymmetry and the addressee is required to identify its back (the opposite side to that which is typically at the front when the car is moving) and project an angle from here to the Figure.

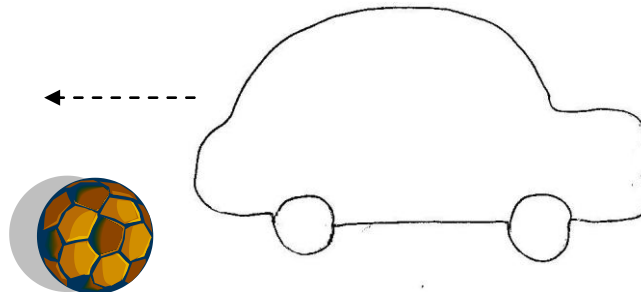


Figure 5.3 Intrinsic FoR: *The ball is behind the car*

Another possibility is to locate the Figure by way of an absolute FoR. In an absolute FoR the vectors are fixed bearings which are generally based on an environmental feature or gradient and often the places where the sun rises and sets². The ball could therefore be located by describing it as being *west of the car* if the points on the compass were correct in Figure 5.4.

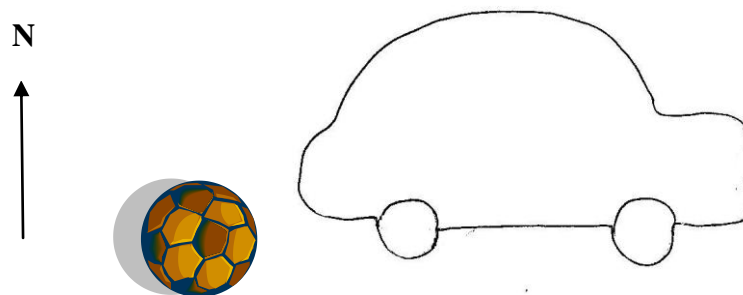


Figure 5.4 Absolute FoR: *The ball is west of the car*

² The place where the sun sets and rises is one example of origins of the axes of Absolute FoRs. There is a great deal of variation and differences in interpretation by linguists as to their origins (François 2004). Chapter 6 will look at this issue in more depth.

The relative, absolute and intrinsic FoRs described here constitute the three-way classification of FoRs as defined by Levinson (1996, 2003). This three-way classification has been the basis of extensive research into FoR usage from Levinson and colleagues conducted at the Max Planck Institute for Cognitive Research in Nijmegen.

Danziger (2010) proposes a fourth frame: the direct FoR, which fills various logical gaps in traditional FoR typology. Firstly, as Danziger notes, the direct FoR ‘can be used to bring linguistic demonstratives and locatives and thereby also speech-accompanying gesture, into the existing spatial typology’ (Danziger 2010:168). Also, in the three-way classification, spatial expressions were not differentiated from each other when the Anchor was the SAP and this was distinct from or the same as the Ground in a binary relationship, or whether the expression was allocentric or egocentric. This is possible with the inclusion of a fourth Frame. Table 5.1 illustrates how the inclusion of the direct FoR fills the logical gap and teases apart these categories and relationships. The intrinsic FoR of the three-way distinction is thus unraveled to make way for the object-centred and direct FoRs.

	Allocentric Anchor is not SAP	Egocentric Anchor is SAP
Ternary Anchor is <i>not</i> Ground	Absolute <i>Milk is to the east of the kettle</i>	Relative <i>Milk is to the right of the kettle</i> <i>Milk is to the right of you</i>
Binary Anchor is (part of) Ground	Object-Centred <i>Milk is at the spout of the kettle</i>	Direct <i>Milk is in front of me</i> (speaker’s own front)

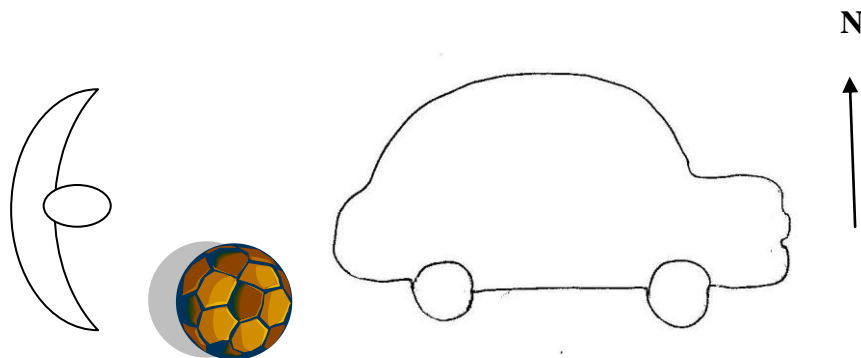
Table 5.1 Table showing how intrinsic FoR splits into object-centred and direct FoR

(adapted from Danziger 2010)

In the direct FoR the Anchor is the speaker or other speech act participant and reference to no other entity is made; the Ground is implicit and the relationship is thus binary. Unlike in the relative FoR there is no projection of body axes on to the Ground. The relevance of the direct FoR is therefore in distinguishing between types of spatial expression which would previously have been subsumed into the same class of FoR. For

example, in Figure 5.5 the ball could be located by saying *the ball is towards me*, *the ball is in front of the car*³ or *the ball is behind the car (at the car's back)* which could all have been classed as intrinsic FoRs under the 3-way classification.

Figure 5.5 Intrinsic Frame *the ball is towards me/ behind the car (at the car's back) / in front of the car*



However, identification of the three different components of a FoR, notably the Anchor, reveals important distinctions.

In the ball is towards me

Figure = ball

DIRECT FoR

Anchor = speaker (no mapping of body axes)

Ground = implicitly understood as speaker

In the ball is at the back of the car

Figure = ball

OBJECT-CENTRED FoR

Anchor = facet of car

Ground = car

In the ball is in front of the car

Figure = ball

RELATIVE FoR

Anchor = speaker (body axes reflected on to car)

Ground = car

³ Here the expression 'in front of the car' involves mirror-image mapping of the speaker's body axes on to the Ground. Other mappings are also possible such as where the body axes are transposed on to the Ground without reflection. In this case this would mean that the front of the car was the same from the speaker's perspective and when referring to the car's own asymmetry (Levinson & Wilkins 2006).

Finally, the inclusion of the direct FoR addresses a gap in the possible computations of rotation sensitivities of the different frames. Rotational sensitivity refers to whether or not spatial expressions remain true after rotation of the elements which participate in the construction of co-ordinates to locate the Figure. For example, if we take the configuration in 5.5 and rotate Figure (the ball) and Ground (the car) pivoting them round as if both on the same turntable, the intrinsic description *the ball is at the back of the car/ the car's back* remains true, as shown Figure 5.6. Note that the SAP is not rotated here.

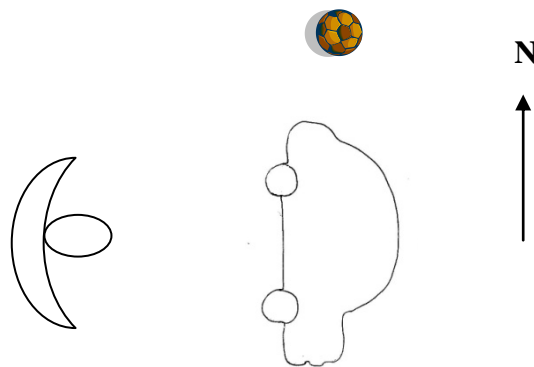


Figure 5.6 Object-Centred FoR under rotation of Figure and Ground

However, under the same rotation neither the absolute FoR (*the ball is west of the car*) nor the relative FoR (*the ball is in front of the car*) descriptions remain true.

Taking Figure 5.5 as a starting position again, if the Ground only were to be rotated on its own axis, now an object-centred FoR reading would be incorrect but a relative and absolute FoR would still be true. The importance of rotation sensitivity to FoR classification is emphasized in Levinson & Wilkins (2006: 20): ‘there seem to be only three major abstract types [of FoR]: intrinsic, relative and absolute. These have different logical and rotational properties, which make the distinction clear’. The identification of the direct FoR in making a distinction between strategies which use the Ground as Anchor or an SAP as Anchor make a further rotation computation necessary: when the SAP is rotated, as illustrated in Table 5.2 (adapted from Danziger (2010)). The configuration from Figure 5.5 is referred to in the descriptions in the table as a starting point from where rotations begin.

Table 5.2 Rotation Sensitivities of the Four FoR (adapted from Danziger 2010: 176)

Description for diagnosis	A. Description still felicitous under rotation of Speech Act Participant?	B. Description still felicitous under rotation of Ground?	C. Description still felicitous under rotation of Figure-Ground array?	Frame of Reference diagnosis
1. <i>ball is west of car</i>	Yes	Yes	No	Absolute
2. <i>ball is in front of car</i> ^a	No	Yes	No	Relative
3. <i>ball is at the back of/behind the car</i>	Yes	No	Yes	Object-Centered
4. <i>ball is in front of me/towards me</i> ^b	No	No	Yes	Direct
^a from the speaker's perspective				
^b with reference to speaker's own front (i.e. 'at my front')				

On the basis of these four frames a 6-way classification of co-ordinate systems allows for a finer-grained interpretation of the ways speakers construct co-ordinate systems (Bohnenmeyer 2008). The 6-way classification gives useful criteria to distinguish between different types of co-ordinate system used by Ske speakers which would have been subsumed under other FoRs prior to the introduction of these finer-grained distinctions. Ske speakers are analysed as using the direct Frame of Reference to locate a Figure in utterances which translate approximately to *he is standing towards me*. This strategy would previously have been classed as use of the intrinsic frame. Another example is that Ske speakers use the same geocentric terms in two different FoR strategies: a geomorphic frame, which is a sub-type of intrinsic frame (see Table 5.3 and Figure 5.7) and the absolute frame of reference. Prior to the 6-way classification these FoRs would have been both classed as absolute. This will be discussed further in Chapter 6 as the geomorphic frame is not used in the Men and Trees case study but in inhabited physical space. Finally, identification of the direct FoR also allows for composite FoR use to be analysed: where direct FoRs combine with other strategies to refine the search domain

specified. The validity of calling these strategies composite FoRs can be tested on the basis of their rotational sensitivities.

Below, detailed information on each type of FoR in the 6-way classification is given.

Table 5.3 The 6-way Classification of FoRs

<i>Binary</i>	<i>Object-Centred</i>	The Anchor of the object-centred FoR is the Ground and the Ground is distinct from the observer. Inherent axes or asymmetrical facets of the Ground serve as the origin from where the search domain is projected, such that in a location description we could say <i>the ball is behind the car</i> .
	<i>Direct</i>	The co-ordinate system is anchored to the body of an observer, which is typically a speech act participant (SAP). Unlike in the relative FoR, the body axes of the observer are not mapped on to the Ground in location descriptions, or the Figure, in orientation descriptions (such as <i>the ball is facing me</i> which would be use of the relative FoR in contrast to <i>the ball is towards me</i> where the direct FoR is used). The Ground is implicitly understood even if not mentioned in utterances such that we understand that <i>the ball is towards me (from the car)</i> . Here the vector is not projected from the Anchor, but points towards it.
<i>Ternary</i>	<i>Relative</i>	In a relative FoR the co-ordinate system is also anchored to the body of an observer but here the body axes of the observer are mapped on to the Ground and the Ground is distinct from the observer. There are different ways the body axes can be mapped on to a Ground one of which being a mirror-image mapping (so that the Ground is ‘facing’ the observer as if an addressee). The relative FoR is used in description such as <i>the ball is in front of/behind the tree</i> .
	<i>Geomorphic</i>	In a geomorphic FoR the Anchor is different to the Ground. The Anchor can be an environmental feature or gradient, such as the gradient of a hill or direction of flow of a river. The axes of the

		anchor are projected on to the Ground and in location descriptions the vector moves in the direction of the river flow or hill gradient from the Ground to locate the Figure. Examples of the geomorphic FoR are <i>the ball is downriver/uphill of the chair</i> .
	<i>Landmark</i>	In a landmark FoR the Anchor and Ground are different entities. Here the Anchor is a man-made or natural feature of the surroundings such as a tree, the sea or building. The Anchor does not have opposing axes in a landmark FoR unlike in a geomorphic FoR where <i>downriver/upriver</i> or <i>downhill/uphill</i> directions oppose each other. The vector moves from the Ground in a direction towards the landmark to locate the Figure. An example of landmark FoR is <i>the ball is towards the church/ churchwards of the tree</i> .
	<i>Absolute</i>	In an absolute FoR the Anchor is distinct from the Ground and is a set of fixed bearings which are abstracted from an environmental feature or gradient. <i>The ball is west of the car</i> is an example of the absolute FoR as the place where the sun sets and rises moves over the course of the year but the cardinal points are abstractions and do not change.

The main divergences in the two systems after the inclusion of the direct FoR and the object-centred FoR is to split the absolute FoR into three groups: geomorphic, landmark and absolute, of which geocentric and landmark are classed as intrinsic. How the six-way FoR classification fits into and diverges from the three-way is illustrated in Figure 5.7 below. As previously mentioned, use of FoRs is the subject of research in various disciplines including linguistics and psychology and Figure 5.7⁴ reflects the analysis of the different disciplines⁵.

⁴ All literature references in Figure 5.7 are originally from Bohnermeyer & Levinson (2011).

⁵ Psychology literature subsumes FoR classes into groups first according to whether or not the ego participates as Anchor, and then, if not, if the Anchor is the Ground or another entity (Li & Gleitman 2002; Li et al 20011; Wassmann & Dasen 1998). Thus, in psychology literature, the egocentric category subsumes relative and direct FoRs as the Anchor point is the ego. The remaining classes: direct, geomorphic, landmark, and absolute and object-centred where the Anchor is external to the ego are

In this case study it was found to be unclear whether speakers were making a distinction between the group of FoRs classed together in psychology as the geocentric FoRs: the absolute, landmark and geomorphic FoRs. This distinction is indeed made by Ske speakers with important consequences. For these reasons, use of a co-ordinate system which makes reference to a landmark or gradient will be classed together as geocentric in Chapter 5 and teased apart in Chapter 6 when spatial referencing in physical inhabited space is described. Object-centred and direct FoRs are distinct strategies in Ske, therefore using the Levinsonian three-way distinction which collapses these two categories is too clumsy. Furthermore, the direct FoR is a valid strategy in its own right as well as when used in combination with other FoRs. After analysis of the data it will be established that the relative FoR is not used by Ske speakers and that spatial expressions which combine with the direct FoR have different properties, which reveals how deictic language creeps into spatial descriptions.

grouped together in the allocentric category. Within the allocentric group, psychologists class geomorphic, landmark and absolute FoRs together in a geocentric subcategory however the object-centred FoR is not included since the Anchor in object-centred FoRs is the Ground. For linguists, the ordering is different and reflects rotational sensitivities of the array and the mapping of body axes of the observer on to the Ground. The classification also reflects variation of FoR use in languages which may use the absolute and intrinsic FoRs, but not the relative FoR, for example. Thus the relative and direct FoRs are not classed together in a higher order group: instead the direct and object-centred FoRs, along with geomorphic and landmark, are collapsed into a higher-order intrinsic FoR. The absolute and relative FoR are also discrete higher order-groups with no subclasses.

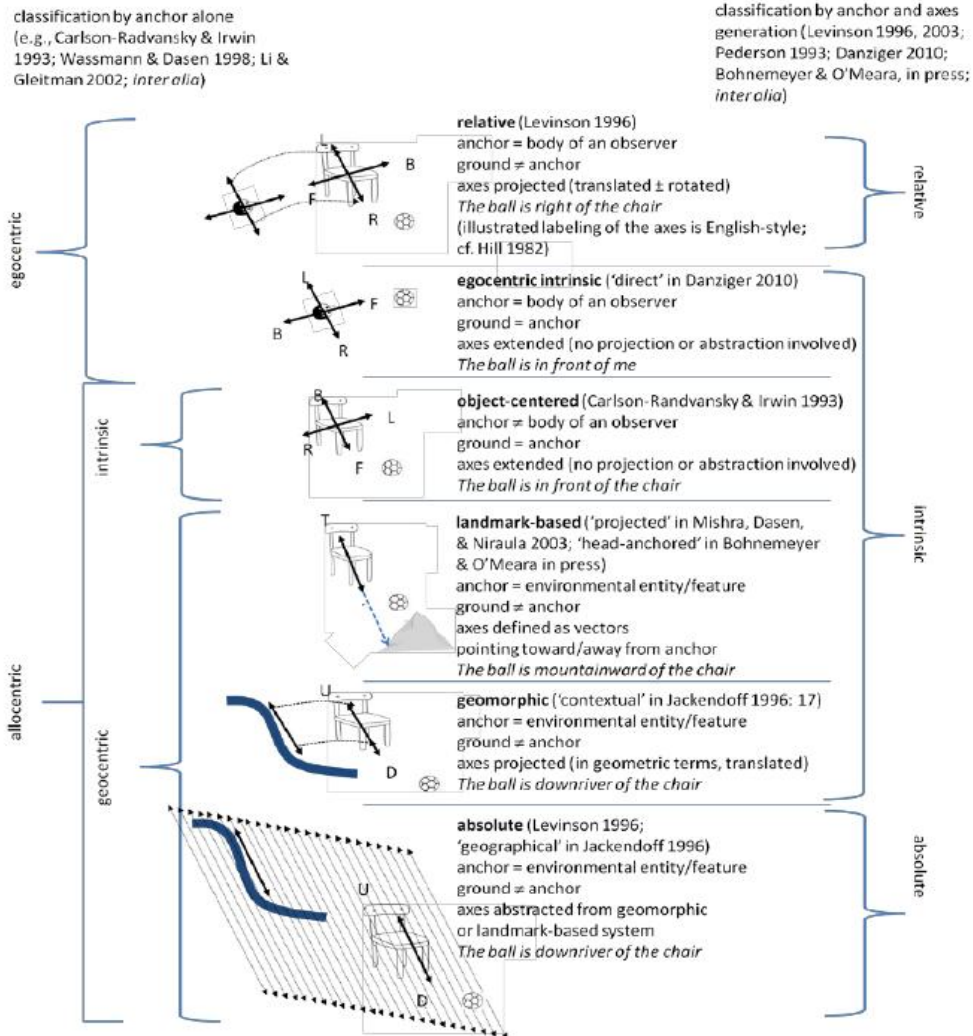


Figure 1. Reference frame types and their classification (A - 'away from', B - 'back', D - 'downriver', F - 'front', L - 'left', R - 'right', T - 'toward', U - 'upriver')

Figure 5.7 The 6-way FoR classification in relation to the 3-way FoR classification (from Bohnemeyer & Levinson 2011)

5.3 Methodology, Data Collection and Data Coding

The Men and Trees Photo-Matching Game⁶ (Danziger 1992; MPI 1993) was used to collect data on FoR preferences in discourse by Ske speakers. The Men and Trees Game

⁶ Other types of stimuli game have been developed to investigate FoR preferences. The Ann Senghas Man and Tree task involves a picture set of a single toy man and tree. The photographs distinguish between all possible locations and orientations between man and tree (e.g. behind the tree facing and not facing the tree, in front of the tree facing and not facing the tree, etc.). The Ball and Chair task (Bohnemeyer 2008) features a ball and chair only in various contrasting positions, including vertical contrasts. The ball and chair entities were chosen in response to the data from the Men and Tree experiments which found that

(M&T) is one of a series of stimuli material produced to investigate spatial language and cognition by the Cognitive Anthropology Research Group (CARG) at MPI Nijmegen.

In the task, two participants are required: one is named the Director and one the Matcher. The instructions to the game specify that the Director and Matcher are given identical sets of photographs and are seated next to each other but with a screen between them. The screen is intended both to obscure the view of each other's photographs and also to preclude gesture information (Danziger 2010) and to maximize other forms of spatial language. The Director is then requested to describe an M&T photograph and the Matcher may question or ask the Director for further information in order to solve the task.

M&T consists of a series of four 'games': four sets of photographs (Game 1, 2, 3, and 4). Game 1 was intended as a practice game to accustom the speakers to the format of the task and includes pictures of coloured balls, bananas, bead necklaces and baskets with lids. The other three games show images of toy men, trees and various 'distracter' pictures including photographs featuring pigs, fences, a cow and a truck. For each photograph there is one, or a number of photographs in which the configurations vary slightly. The intention is thus of encouraging the Director to give precise spatial descriptions in order to distinguish between them. Two examples of these slight variations are shown below. The man in each of the two pictures in Figure 5.8 is facing the same direction, however, he is on different sides of the tree. The Director's information should make it explicit which of the pictures is being referred to by distinguishing which side of the tree he is on.

although the man was the intended Figure, in fact many speakers found the man, being faceted (with inherent front and back and sides), to be a more salient Ground (Talmy 2000). The purpose for its development was as part of the MesoSpace project as a controlled task for cross-linguistic comparison and analysis in the sprachbund under study (O'Meara & Báez 2011).

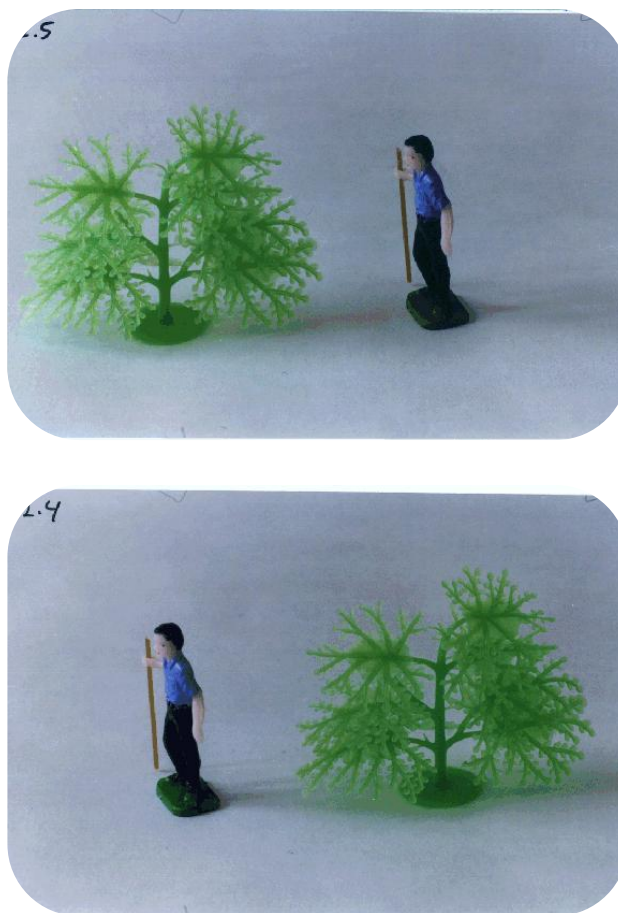


Figure 5.8 Men and Trees. Game 2 Pictures 4 (top) and 5 (bottom)

For the Ske case study, all the games of the M&T set were used. Considering the types of entities featured in the all the M&T photographs, such as balls, trees, trucks and men, this meant that speakers were asked to orient and locate entities with inherent asymmetries ('front') and others whose facets could be referred to without indicating an asymmetry ('side').

The task was conducted with eight pairs of speakers and fourteen community members in total. Four were female and between the ages of thirty and sixty. Of the ten males, seven were over 30, three were between twenty and thirty and one was under twenty. Fourteen games were played in total. In eight of these the speakers were seated on the downhill-uphill axis and in six they were seated along the coastal axis, perpendicular to it. It is not the norm for houses in Pentecost to have tables and in the separate kitchens the light is often very poor. For this reason most of the games were conducted in the church and one

was held at the guesthouse where I was staying. Whilst both buildings are in Bwaravet village, the guesthouse is further downhill and located in a more northerly position. It has a large river running almost immediately behind it, which is audible on all the recordings made here, and a road at the front. These features could have been used as ad hoc landmarks (Senft 2006) but were not. I had wanted to run some other M&T tasks in areas inland, preferably on a downhill slope towards the centre of the island, however most villages are on the coast and the interior is mountainous with lush vegetation meaning finding an outdoor spot to carry out the task was difficult. There are small villages further inland such as Chief Willie's village in Valiamit, however in order to get there it is necessary to cross a large river five times on a three-hour walk and I did not take recording equipment with me when we visited.

For the task, women were paired with women and men with men. Instructions were given in Bislama and pairs decided who would be Director and Matcher first. All the games were recorded as audio. Pictures were dealt out at random and then the participants arranged them as they saw fit on the bench in front of them. When the Matcher had decided they had found the photograph, they held it up and I wrote down the number written on the back. A coin or stone was placed on the photograph to show that it had been matched. The director always verbally indicated they were moving to a new photograph so this was clear when listening back to the recordings.

Each spatial description was coded as either providing an orientation or location description and also with respect to the strategy, for example the FoR type, the speaker used. The coding is sensitive to descriptions which are topological or intrinsic and distinguishes between the two. Bohnemeyer (2011) points out that 'in research on spatial FoRs, topological and intrinsic descriptions are often lumped together'. As outlined in Chapter 3, some topological descriptions, namely those which refer to an asymmetry of an entity (e.g. some bound relational nouns such as *waló* 'behind/back' and body-part terms), are classed as taking part in topological descriptions as well as in intrinsic, or strictly-speaking under the finer-grained classification, object-centred FoRs. Other forms which refer to a facet of an entity but do not code an asymmetry (*lia* 'side', *pasira* 'other side') do not automatically participate in a FoR but are topological. 'Lumping together'

(Bohnenmeyer 2008) of object-centred FoRs and topological expressions is thus avoided. But this distinction is not made simply for neatness, the distinction is important as the forms which refer to those facets which are not inherent asymmetries of an entity can enter into an angular spatial expression in combination with a deictic term in a compositional FoR, as will be shown in the ensuing discussion in more detail.

Spatial descriptions or ‘distinguishing propositions’ (Levinson & Wilkins 2006; Terrill & Burenhult 2008) are descriptions which speakers use to identify, or narrow, the picture-matching possibilities. These are opposed to phrases which inform us of unrelated aspects of the photographs such as the colour of the truck. Diverging slightly from Terrill & Burenhult (2008) I include descriptions identifying in which hand the man holds the stick, for example, among other spatial descriptions which are not strictly distinguishing propositions. Although the stick is always in the same hand, as the toy men are identical, speakers do sometimes use this in an attempt to narrow the matching possibilities, furthermore it provides valuable data regarding the use of ‘left’ and ‘right’ terms in an object-centred FoR and not in a relative FoR. Also, it highlights a lack of speaker confidence in using these terms; often identification of the hand with a geocentric term is preferred or used to confirm which is the ‘right’ hand.

Types and tokens of spatial descriptions were coded, so that if the Director repeated a spatial description for a picture, only the number of tokens increased. Questions were coded, as were negative sentences.

Spatial descriptions relevant for this study are lexicalized both in the verb phrase and in adjuncts. A serial verb construction consisting of a locative predicate or *pet* ‘stand’ and a deictic directional anchored to the speaker is coded as unique spatial description (1) illustrating a direct FoR with ‘come’. The adjunct is a PP with the preposition *povohe* ‘near’ as its head. The adjunct is coded as a separate spatial description and expresses a topological relation. Example (1) therefore contains two separate spatial descriptions.

- | | | | | |
|-----|--|-----------|--------------------|--------------|
| | [SVC] | | [ADJUNCT] | |
| (1) | <i>m=pet</i> | <i>me</i> | <i>povohe</i> | <i>buluk</i> |
| | 3SG.IPFV=stand | come | near | cow |
| | ‘He is standing this way (towards us) near the cow.’ | | | |

In the majority of cases either a locative predicate or the verb *krav* ‘face/look.INTR’ are found in the descriptions but also *vsi* ‘hold.TR’ in relation to the man holding the stick are found.

In some descriptions where a facet of the Ground is indicated by a bound relational noun, speakers modify the noun with a directional phrase as in (2). The noun denoting the Ground need not be overt and is indicated by the possessive suffix (see Chapter 2.7).

- | | | | | |
|-----|---|---------------|---------------------|--------------------------|
| | | [NP | | [DirectP]] |
| (2) | <i>udia</i> | <i>a=pet</i> | <i>pasria-n</i> | <i>me</i> <i>batniaq</i> |
| | wood | 3SG.PFV=stand | other.side-3SG.POSS | come downhill |
| | ‘The tree is at its downhill-side towards us.’(The downhill-side of the fence.) | | | |

Phrases shown in (2) are coded as one spatial description combining a direct FoR with a geocentric FoR with reference to a Ground. In example (3) two spatial descriptions are coded, one in each adjunct⁷ one description employs a topological reference ‘near the cow’ and the other a combination of the direct FoR and a geocentric FoR: ‘downhillwards towards us.’

- | | | | | | |
|-----|--|--------------------|--------------|--------------------|----------------|
| | | [Adjunct 1 | | [Adjunct 2 | |
| (3) | <i>a=pet</i> | <i>povohe</i> | <i>buluk</i> | <i>me</i> | <i>batniaq</i> |
| | 3SG.PFV=stand | near | cow | come | downhill |
| | ‘It is near the cow, downhill towards us.’ | | | | |

Use of *me* ‘come’ in an SVC as in (1) or in adjuncts as in (2) and (3) is always coded as use of the direct FoR, However, identical syntactic occurrences of *ba* ‘go’ are not coded

⁷ In (3) the two locative phrases are adjuncts and their order can be reversed. In (2) there is only one adjunct; reversal of its components is ungrammatical. The DP modifies the NP.

as use of the direct FoR as *ba* is not always used to mean ‘in a direction away from the speaker’ (see Chapter 3.9 and Chapter 6), but as the default motion verb, without specifying direction. *Ba* is only coded as being employed in a direct FoR when used contrastively with *me* as in (4).

- (4) *qa a=krav ba bamriaq ae qa a=krav*
 PRON 3SG.PFV=look go uphill CONJ PRON 3SG.PFV=look
me batniaq?
 come downhill?
 ‘One is looking uphill and one is looking downhill towards us?’
 (2009-05-09-00533-au-htab)

Researchers have found that certain stimuli tasks have motivated a bias for a particular FoR by speakers that in natural, or cognitive experiments have shown a preference for a different FoR (Wassmann & Dasen 1998; Bohnemeyer 2011). Some non-linguistic tasks developed by MPI produced higher usage of the intrinsic FoR (Steve’s mazes MPI 1992), higher use of geocentric FoR (Alignment Task MPI 2003), and higher reference to facets of entities and the intrinsic FoR (Men and Trees MPI 1993). The organization of players in M&T sitting side by side with a screen between them was designed with the purpose of excluding gesture and deictic language (Danziger 2010). Therefore one clear drawback is that deictic language is suppressed to some extent. In this study, deictic language which is anchored to an addressee, i.e. the directional verb *met* ‘go.ADDR’ (which indicates a direction towards the addressee or other deictic centre) and the demonstrative *nam* ‘PROX.ADDR’ (which indicates a location proximal to the addressee) do not occur the M&T game, most probably for these reasons. Non-appearance of the forms here results from the limitations of experimental methods rather than being a reflection of non-usage by the community. The interesting point is, however, that deictic language was not entirely suppressed; speakers continued to use deictic demonstratives and motion verbs to describe the location and orientation of entities in the array to their partners, in spite of the lack of eye contact and visible gestures.

It is important to recognize that a bias towards intrinsic references exists in the Men and Tree task for the Ske study. Use of photographs which involve entities with and without inherent asymmetries may counteract the bias to a small extent. Despite the problems with the ‘ecological validity’ of collecting data in this way (Senft 2007) and the drawbacks of the setting which means addressee-anchored terms are not used, I believe the findings from the M&T task are valid because the type of spatial referencing used here was found to be systematic amongst the consultants and it is also supported by data from observed language use.

Spatial descriptions are also coded with respect to what functional information they express. This is measured by assessing whether the speaker orients or locates the Figure. Descriptions are assessed for their ‘orientational’ or ‘locational’ function following Terrill & Burenhult (2008) instead of ‘facing’ versus ‘standing’ information, which is found in previous analyses of M&T data (Pederson et al. 1998: 567; Senft 2006: 536; Levinson & Wilkins 2006). Terrill & Burenhult (2008) found that ‘facing’ and ‘standing’ categories had been based on the syntax of the spatial description such that ‘it is the standing vs. facing of the grammatical subject of the proposition that decides which category the proposition belongs to. Thus, *the man is to the east* and *the tree is in front of the man* are examples of ‘standing information’ whereas *the man is facing east* and *the man is looking at the tree* represent ‘facing information’. In the Terrill and Burenhult version, a ‘location’ description gives information about which of the four possible locations the man may stand in with respect to the tree on the horizontal axes (sagittal and lateral to the participants). In this way, *the man is east of the tree* or *the man is left of the tree* are ‘location’ descriptions. In comparison ‘orientation’ descriptions orient the man in relation to something and the phrases *the man is looking at the tree* or *the tree is in front of the man* do just this. Although facets of entities as well as people can ‘face’ in Ske, this framework for assessing orientation or locational information backgrounds the importance of which particular entities speakers find are salient Figures or Grounds.

5.4 Overview of Literature on Spatial Frames of Reference

Two major cross-linguistic studies of space are those carried out through MPI Nijmegen and more recently the MesoSpace project. MPI Nijmegen produced a series of tools for investigating space in language and cognition which include the tools for analysing topological space and spatial FoRs used in this study. The chapters in Levinson & Wilkins (2006) are a collection of these studies which provide detailed analyses of FoR preferences, topological reference and lexicalization patterns in motion expressions in a worldwide-range of language families. The MesoSpace Project hones in on a particular geographical area and investigates FoR preference in the Mesoamerican sprachbund and two non-Mesoamerican languages (O'Meara & Báez 2011)⁸.

Research on the use of spatial FoRs in the geographical area of this study shows that intrinsic and absolute or geocentric FoRs are dominant. Studies in Vanuatu are from N.E Ambae (Hyslop 2002) and Mwotlap (François 2003); in New Caledonia (Ozanne-Rivière 1997), and in the Solomon Islands on Lavukaleve (Terril 2008), Kubokota (Chambers 2009) and Longgu (Hill 1997). Although the relative FoR has restricted use also in Tongan (Bennardo 2000) and in Kilivila (Senft 2006) which also makes use of ad hoc landmarks for absolute reference.

In Austronesian and Oceanic languages, deictic, absolute and intrinsic frames of reference tend to interact (Senft 1997, 2004; Bennardo 2002⁹; Hyslop 2002). Alternatively, a strategy may rely heavily on deictic reference (Terrill & Burenhult 2008).

Particular frames of reference are also found to be used for either locating or orienting an entity predominantly (Senft 2006), or are found predominantly in large or small-scale space (Bennardo 2000). In many cases, authors stress the importance of cultural knowledge of place and topography in assigning facets to entities (Bennardo 2000), or in

⁸ The project aims to investigate FoR preference and explore a connection between productive meronymical systems and a dispreference for the relative FoR. See the collection of articles in O'Meara and Báez (2011).

⁹ Senft (1997) and Bennardo (2002) include descriptions of Longgu spoken in the Solomon Islands, Taba, spoken in Eastern Indonesia, as well as some New Caledonian languages in which authors describe these systems interacting.

the selection of the type of motion encoding verb used as a directional depending on the setting, such as inland versus coastal environments (Chambers 2009).

5.5 Frames of Reference in Ske

Analysis of the M&T data reveals usage of direct, object-centred and the geocentric FoR. In addition, combinations of FoRs are used. Evidence of direct FoR and composite FoR use comes from rotation sensitivity.

Terril & Burenhult (2008) find that all picture internal cues provide orientation information and picture external cues provide both orientation and location information. Description of FoR use in Ske is organized in this way below. In section 5.5.1 picture external cues are examined, firstly deictic reference and secondly geocentric reference, and in section 5.5.2 we look at picture internal cues using object-centred reference and topological descriptions.

5.5.1 Picture-external Cues

5.5.1.1 Deictic Reference and the Direct FoR

Research into strategies to locate entities in angular spatial reference in Austronesian languages finds that speakers make systematic use of deictic reference and directional verbs which are anchored to a speech participant. Having said this, the means of classifying this type of reference has been problematic, as outlined above. As Terrill & Burenhult (2008: 120) remark, ‘there are several strategies [...] which do not immediately lend themselves to straightforward frames-of-reference classification [...some] involve cues which, as far as we know, have not been dealt with in previous work based on ‘Man and Tree’¹⁰ data, especially demonstratives’. This study aims to apply new FoR classification to deictic reference strategies in Ske.

The motion verb and directional *ba* ‘go’ or ‘move in a direction away from the speaker’ and *me* ‘come’ or ‘move in a direction towards the speaker’ and two of the spatial

¹⁰ Terrill and Burenhult (2008) used the Ann Senghas ‘Man and Tree’ picture set, not the ‘Men and Trees’ MPI picture set.

demonstratives coding proximal and distal distance distinctions, *ne* ‘PROX2’ and *dae* ‘DIST’, occur frequently in M&T data. The addressee-anchored directional *met* ‘go.ADDR’ and demonstrative *nam* ‘PROX.ADDR’ do not occur for the reasons mentioned above. Examples of deictic reference usage in the M&T data are provided first, followed by analysis of their projective functions in the direct FoR.

5.5.1.2 Directional Verbs and Demonstratives

In (5) a directional and a geocentric noun *siak* ‘upwards’ are in a directional phrase (DP) and describe the orientation of the opening of a basket, as shown in Figure 5.9. The participants were seated on the coastal axis and were facing north.

- (5) *vwa-n* *mwe=krav* *me* *siak*
mouth-3SG.POSS 3SG.IPFV=look come upwards
‘The mouth of the basket is facing southwards towards us.’
(2009-05-12-00541-au-ptjt)



Figure 5.9 Men and Trees. Game 3 Picture 10

In (6) the location of the tree with respect to the man is expressed in a directional phrase which combines a direct FoR with a geocentric FoR. The participants were seated along the downhill-uphill axis facing uphill and the speaker was sitting on the north side of the bench with the addressee sitting on the south side. The photograph is shown in Figure 5.10.

- (6) *bwaudia a=pet me siv*
 tree 3SG.PFV=stand come downwards
 ‘The tree stands northwards towards me (of the man).’
 (2009-05-01-00463au-cwrp)

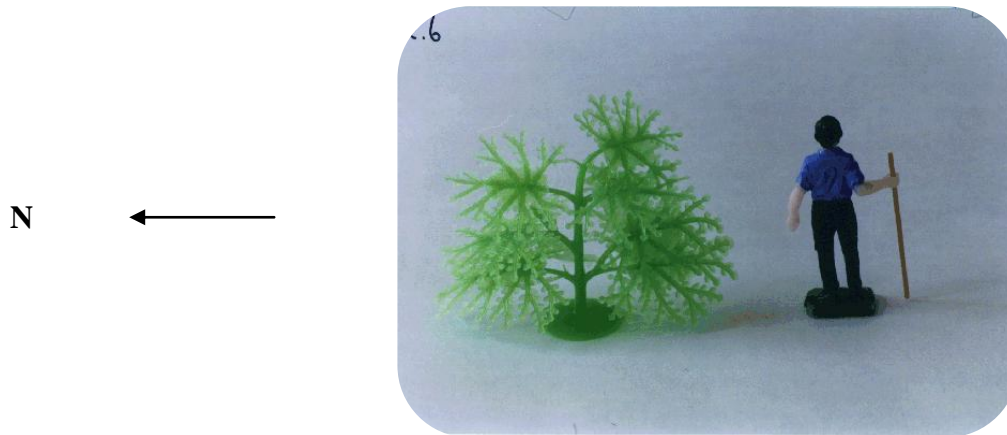


Figure 5.10 Men and Trees. Game 2 Picture 6

In (7) the speaker describes the configuration of the two men in the photograph shown in Figure 5.11 by using contrastive directionals *ba* and *me*.

- (7) *azó aru mra=pet be pwasin m=pet me*
 man two 3DU.IPFV=stand but other 3SG.IPFV=stand come
ae pwasin m=pet ba
 CONJ other 3SG.IPFV=stand go
 ‘There are two men, but one is standing towards us and one is standing away from us.’ (2009-05-05-00516au-mmhm)

As the Figure below shows, the two men are facing opposite directions; one is facing a direction as if to walk towards the speaker and the other is facing the opposite direction, as if to walk away from the speaker. However, one is also closer to the speaker and one is further away, and it is this distinction which is expressed here. The directionals here express distance distinctions and not directions of travel, which they would if in an SVC where the V1 was a verb of motion. This description does not distinguish between a picture where the men are facing the same or opposite ways, only that one man is further

away from the speaker than the other. In (8) below, however, this facing opposite ways distinction is expressed.

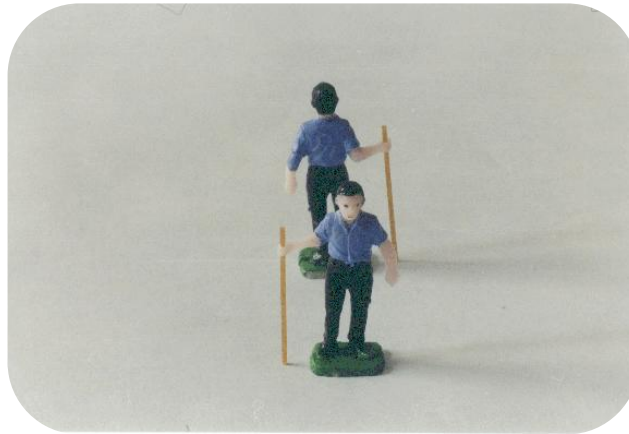


Figure 5.11 Men and Trees. Game 4 Picture 6

In (8) the directional verb *me* and also the demonstratives *ne* ‘PROX2’ and *dae* ‘DIST’ are used contrastively in spatial descriptions of the two men in the photograph in Figure 5.12. *Me* ‘come’ locates the men by distinguishing the man closer to the speaker, or towards the speaker from the man further way. Being locative descriptions, the directionals are not coding motion here; the man’s direction of travel is not described. Indeed, the men are oriented incorrectly for the closer one to be moving towards the speaker. The further one looks towards the speaker with *me* ‘come’ and the closer one looks away from the speaker with *ba* ‘go’.

Concerning the function of the demonstratives in (8), they attach to a local noun *en* ‘place’ distinguishing between the two locations the men are standing in on the basis of their distance from the speaker. The distal demonstrative also cliticises on to the geocentric term *basiv* ‘down’ which refers to a northerly place. Here the speaker is distinguishing between these two locations by partitioning space using a geocentric FoR, thereby indicating that the location *basiv* is further way from her.

(8) *qa ne m=pet me en=ne ae*
 PRON REL 3SG.IPFV=stand come place=PROX2 CONJ
mwe=krav ba ae qa ne m=pet en=dae
 3SG.IPFV=look go CONJ PRON REL 3SG.IPFV=stand place=DIST
basiv=dae, ae mwe=krav me
 down=DIST CONJ 3SG.IPFV=look come

‘The one who is standing towards us here is looking away from us and the one who is standing there, northwards there is looking towards us.’

(2009-05-05-00516au-mmhm)



Figure 5.12 Men and Trees. Game 4 Picture 5

The directionals thus have two functions: in location descriptions they indicate a relative distance distinction (closer and further away from speaker) of a Figure relative to an implicit Ground. In orientation descriptions they indicate that the specified facet is oriented in a direction towards or away from the speaker. The demonstratives, when cliticised onto a bound relational or locational noun, code proximal and distal distance distinctions of these facets or locations from the speaker’s perspective.

Deictic reference involves a binary relationship between the SAP and Figure (Danziger 2010) where the Ground object is implicitly understood. In Ske, deictic reference is classed as binary when either a directional or demonstrative relator is used alone, but not when in a composite FoR with an already well-formed angular spatial reference. Directionals functioning as the only relators in a spatial description were frequently used to distinguish configurations in photographs, as were demonstratives cliticised on bound

relational or local nouns. A strategy involving deictic reference only was found to be a valid one for Ske speakers.

It is interesting that deictic language is used in the M&T game in a setting where visual clues and gesture is precluded. The lack of gesture information raises questions about how the identity of the Anchor is established and how the vectors which move to narrow the search domain and locate or orient the Figure are calculated. In semantically lacking adverbs such as English *there*, gesture information is crucial to provide a vector for the addressee to follow (Danziger 2010: 178). Since gesture information is not available to participants in the M&T task, it follows that the deictic language used in the task in distinguishing proposition is not semantically lacking and that SAPs have shared knowledge of what the forms encode, making gesture unnecessary. The positions of the Director and Matcher in the M&T games were established before the games began and did not alter through the course of the game. Potentially, this supplied enough basic information for speakers to use and understand deictic language without requiring gesture; gesture presumably reinforces deictic language in Ske, but is not vital for supplying its meaning. This study argues that, in Ske, directionals and demonstratives have projective functions. To orient a Figure using a directional verb, a vector is projected from the Anchor on to the named facet and moves from the facet in the direction ‘away from’ or ‘towards’ the speaker.

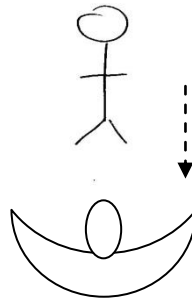


Figure 5.13 Projective Functions of Directionals in Orientation Descriptions

When directionals are used to locate a Figure such as in (6) ‘the tree is northwards towards me (of the man)’, a vector is projected from the implicit Ground in the direction specified by the directional ‘towards the speaker’ to locate the tree.

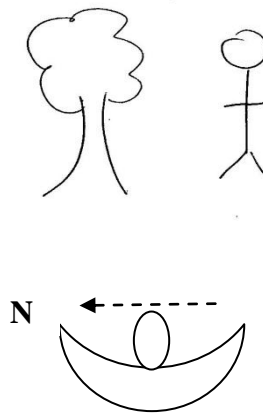


Figure 5.14 Projection Functions of Directionals in Orientation Descriptions (with Implicit Ground)

However, descriptions such as (19) ‘[T]here are two men, but one is standing towards us and one is standing away from us’, in which locations of each man are compared with respect to the other, appear to present a problem for analysis in the direct FoR since it seems there is a ternary relation, a Ground, from where the vector should originate. In this type of comparative location description it is suggested that the Ground is a not a hypothetical middle point between the two Figures, but the vectors originate from the Anchor (SAP) and move in the direction specified by the Anchor, which is ‘towards’ and ‘away from’ the speaker, in order to locate each man. This then implies that the directionals may code distance distinctions.

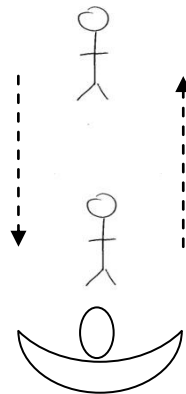


Figure 5.15 Projection Functions of Directionals in Comparative Locative Descriptions

In the case of the demonstratives *ne* and *dae* the speaker is the Anchor (and merged Ground) and the vector is projected from here. Shared knowledge of the distance distinctions coded by the demonstratives allows the addressee to interpret the information without gesture. The vector moves from the speaker to locate a proximal entity and a distal entity.

Deictic references in direct FoRs show rotation sensitivity as described by Danziger (2010). If the Ground is rotated or the Figure is rotated, descriptions using deictic language are no longer valid. However, if both Figure and Ground are rotated the description remains valid. When demonstratives are not used contrastively, there is some uncertainty over their projective functions and sensitivity under rotation (section 5.6).

The projective functions and therefore the rotational sensitivities of spatial descriptions involving demonstratives and directionals, when used contrastively in Ske, type them as belonging to the direct FoR. Deictic language will be examined in a composite FoR as further evidence of this below.

5.5.1.3 Geocentric Reference

5.5.1.3.1 Coastal and Uphill-Downhill Axis

The absolute FoR is coded by three sets of axes in the Men and Tree data. The first sets of axes indicate opposing directions sagittal to the coastline when on land. Due to the orientation of Pentecost, the coastline axes are translated as ‘north(wards)’ and ‘south(wards)’ but have no connection to the compass points per se. They are glossed as ‘up(wards)’ and ‘down(wards)’ for reasons detailed in Chapter 6. The other axes lie perpendicular to the coastal axis indicating directions inland and towards the sea. They are glossed as uphill and downhill for reasons also detailed in Chapter 6.

Geocentric terms occur in different positions in spatial expressions. They may modify a nominal expression indicating Figure or Ground as part of relative clause and they occur in a directional phrase in an adjunct. In (9) the geocentric directional noun *imriaq* ‘hillwards’ modifies the noun referring to the Figure to specify which of the two men in the picture is being discussed by way of an absolute reference: the ‘hillwards man’ and

not the ‘downhillwards man’. In the same example there are two directional phrases containing geocentric locational nouns *bamriaq* ‘uphill’ and *basiv* ‘down’. They describe the locations towards which the man is standing and looking, respectively.

[Rel Clause]

- (9) *pwasin ne imriaq m=pet ba bamriaq ae*
 other.one REL uphillwards 3SG.IPFV=stand go uphill CONJ
mwe=krav ba basiv
 3SG.IPFV=look go down
 ‘The hillwards one is standing towards uphill and is looking north.’
 (2009-05-05-00516au-mmhm)

In (10) the geocentric locational noun *batniaq* ‘downhill’ modifies the bound relational noun *pasira* ‘other side’ to specify on which side of the fence the tree stands.

- (10) *udia a=pet pasira-n ba batniaq*
 wood 3SG.PFV=stand side-3SG.POSS go downhill
 ‘The tree stood on the on the side of the fence downhill.’
 (2009-05-01-00477au-otcb)

5.5.1.3.2 Towards the Sea and the Bush: The Third Axis

The locative phrases *la zeh* ‘at the sea’ and *lon oza* ‘inside the bush’ are used interchangeably with the geocentric terms *batniaq* ‘downhill’ and *bamriaq* ‘uphill’ by some speakers. Although both *la zeh* and *lon oza* appear to be prepositional phrases they are treated syntactically the same as the geocentric terms and other locational nouns by being preceded by the preposition *ne* which marks local nouns for the role of Goal.

In (11) *la zeh* occurs is marked for the role of Goal by the preposition *ne* and indicates the direction in which the man is facing.

- (11) *a=krav ba ne la zeh*
 3SG.PFV=look go GOAL at sea
 ‘He looked towards the sea.’ (2009-05-09-00533-au-htab)

In (12) below, *la zeh* ‘at the sea’ is used contrastively with *bamriaq* ‘uphill’, to indicate two opposing directions on the land-sea axis.

- (12) *pwasin mwe=krav ba la zeh ae pwasin*
 other.one 3SG.IPFV=look go at sea CONJ next.one
mwe=krav ba bamriaq
 3SG.IPFV=look go uphill
 ‘One is looking towards the sea and one is looking uphill.’
 (2009-05-05-00516au-mmhm)

La zeh and *lon oza* are not analysed as landmarks and are syntactically like locational nouns, the same as the geocentric terms. They have the same functions as geocentric terms in that they denote two opposing directions along the land-sea axis, however these axes are not abstracted and thus do not constitute an absolute FoR strategy, but are geomorphic FoRs. Not all speakers used the bush-sea termed axis: it was restricted to young males only. There are no alternative terms for directions along the coastal axis. Chapter 6 will show that the geocentric terms *batniaq* ‘downhill’ and *bamriaq* ‘uphill’ can be used when at sea as well as on land, this is not the case for the bush-sea termed axis. Implications of this restriction and further complexities of the geocentric axes will be discussed in Chapter 6.

5.5.2 Array-internal Cues

5.5.2.1 Left and Right

Left and right terms are used exclusively in object-centred FoRs in Ske. Examples from the M&T study of left and right terms are mostly those describing in which hand the man is holding the stick. Also, left and right facets of the man can function as the Ground from where a search domain is projected. They are never mappings of the speaker’s body axes onto the Ground. Left and right terms are only used in relation to the man and never with other animates or inanimate objects.

In (13) the man’s right side is identified. The speaker was facing east and the right side of the men is therefore towards the north in Figure 5.16. Had the body axes of the speaker

been mapped on to the Figure, the stick would have been on the left. The speaker qualifies the ‘right’ side in another locative adjunct using the bound relational noun *mwari* ‘side’ and the location noun *basiv* ‘down’.

- (13) *ara=vsi* *no-r* *udia* ***ra-n*** ***mzó,***
 3DU.PFV=hold.TR CL.GEN-3PL.POSS wood on-CONST right,
mwari-n *ne* ***ba*** ***basiv***
 side-CONST REL go down
 ‘They are holding their stick on the right, the side going northwards.’
 (2009-05-12-00538-au-pt)

North ←



Figure 5.16 Men and Trees. Game 3 Picture 3

A number of examples, similar to the one above, feature the speaker initially referring to the man’s right but then supplementing the information with a geocentric reference. In another (14), the Matcher asks for clarification from the Director after he had referred to the man’s right hand. Clarification is drawn from geocentric reference and not a relative frame question, such as ‘my right or the man’s right’.

- (14) ***ran*** ***mzo?*** *ne* *m=du* *ba* ***bamriaq?***
 on-CONST right? REL 3SG.IPFV=exist go uphill?
 ‘On the right? The one which is going hillwards?’ (2009-05-15-00549-au-itab)

There does seem to be some use of left and right terms to identify zones beyond the body of the man. In the example below, (15), the right side of the man serves as the Anchor and the origin of the vector which provides the search domain in an object-centred reference. The pigs are identified as coming from a direction on the right side of the man. Once again, the configuration could be interpreted as being on the left side of the man from the speaker's perspective if a relative FoR had been used.

- (15) *bo nier ave=tliek ba ra-n mzó*
 pig PL 3PL.PFV=wander go on-3SG.POSS right
 'The pigs were walking on his right.' (2009-05-15-00546-au-itab)

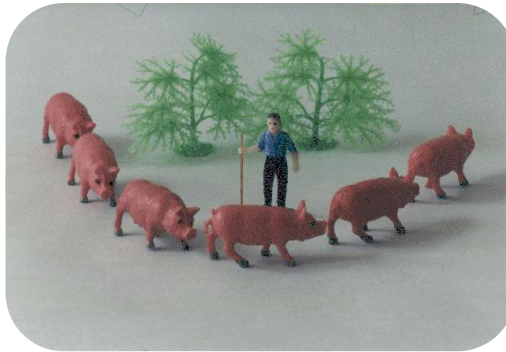


Figure 5.17 Men and Trees. Game 4 Picture 1

5.5.2.2 Body-Part Terms, Bound Relational Nouns and other Prepositions

It was discussed in Chapter 3 that some Class I prepositions, the bound relational nouns, operate as spatial relators in topological descriptions and that those descriptions which refer to a Figure's asymmetry can also be considered as participating in angular spatial descriptions in the object-centred FoR. Those terms which do not refer to asymmetries of the front-back or left-right kind are not classed as participating in angular descriptions. However they can be introduced in to an angular reference when used alongside a deictic expression in a composite FoR strategy. We begin the discussion with the latter group.

5.5.2.2.1 *mwari* ‘side’

In (16) *mwari* indicates the side of a stone and this has the function of the Ground. The bound relational noun provides no information as to the location of the tree on any of the four positions sagittal or lateral of the tree.

- (16) *bwa-n* *ngiek* *a=pet* *mwari-n* *vet*
head-CONST flower 3SG.IPFV=stand side-CONST stone
‘The tree (with flowers not fruit) stands at the side of the stone.’
(2009-05-01-00462au-cwrb).

5.5.2.2.2 *pasira* ‘other side’

Pasira ‘other side’ is often used with an entity like a road, a fence, or a river which is long and straight and divides the space in half. In the Men and Trees data it occurs in pictures featuring the fence (17) and is often supplemented with deictic or geocentric references which provide the asymmetry.

- (17) *buluk* *m=pet* *pasira-n* *or* *ba* *bamriaq*
cow 3SG=stand other.side-CONST fence go hillwards
‘The cow is standing on the hillwards side of the fence.’

5.5.2.2.3 *bie* ‘proximity’

Bie codes proximity to animate entities only. It codes topological relations and indicates the men’s positions in relation to each other or to the pigs. It provides orienting information only since it does not provide the addressee with information as to where, sagittally or laterally, the man is in relation to the pigs.

- (18) *bo* *nier* *kangmwo* *ae* *azó* *a=pet* *bie-r*
pig PL only.again CONJ man 3SG.PFV=stand proximity-PL.POSS
‘The pigs (are there) again and the man stands near them.’
(2009-05-05-00516au-mmhm)

5.5.2.2.4 *povohe* ‘near’

The only examples of topological reference in the Men and Tree data when speakers use a Class II preposition is with *povohe* ‘near’ which codes proximity to an object. *Povohe* does not indicate a asymmetrical facet of an entity and is thus not considered as being a description using an object-centred FoR.

- (19) *bwan* *ngiek* *a=pet* ***povohe*** *vet*
head-CONST flower 3SG.PFV=stand near stone
‘The flower bush is near the stone.’

The terms which we go on to describe subsequent to *povohe* ‘near’ are those which refer to inherent asymmetries of an entity.

5.5.2.2.5 *waló* ‘back’

Waló is another Class I preposition which is a bound relational noun. It occurs as the head of a phrase and like other bound nouns, it takes an obligatory possessive or construct suffix. It does not refer to a body part¹¹ but expresses an inherent asymmetry of an entity, and in the Men and Tree data, it can function as Figure and Ground. In (20) it functions as the nominal expression in the Ground phrase and the vector which is projected has its origins here. The meaning is ‘behind the pigs’.

- (20) *a=pet* ***waló-r*** *bwó* *nier*
3SG.PFV=stand back-PL.POSS pig PL
‘He stands behind the pigs/the area at their backs.’
(2009-05-01-00477au-otcb)

As *walo* ‘back’ codes an inherent asymmetry of an entity, the specific facet referred to can describe the direction an entity ‘faces’ (21).

¹¹ The body-part term is *sidió* ‘back’.

- (21) *waló-n* *qa* *mwe=krav* *me* *batniaq*, *waló-n* *qa*
back-CONST one 3SG.IPFV=look come downhill, back-CONST one
mwe=krav *ba* *bamriaq*
3SG.IPFV=look come uphill

‘The back of one (man) is looking downhill towards us, the back of one is looking uphill.’ (2009-05-15-00546-au-iab)

5.5.2.2.6 *lamza* ‘face’

Lamza ‘face’ refers to an inherent asymmetry of an entity. As with *walo* ‘back’ it functions as the Ground phrase to indicate the facet of the entity from where the vector is projected (22). Speakers also use *lamza* ‘face’ to indicate which direction the Figure is facing (23).

- (22) *ze* *bo* *alvwal=ne* *a=pet* *lamza-n* *azó=ne*
ART pig one=PROX2 3SG.PFV=stand face-CONST man=PROX2

‘This one pig here is standing in front of this man.

(2009-05-05-00516au-mmhm)

- (23) *lamza-r* *mwe=krav* *me*
face-PL.POSS 3SG.IPFV=look come

‘They are facing this way (towards me).’

5.5.2.2.7 *zek* ‘after/behind’ and *mwo* ‘before/in front’

Zek and *mwo* are classed as relational locational nouns (Chapter 2.5.2.1.2 and Chapter 3.8.2). Spatial descriptions in the Men and Tree data use *zek* ‘after/ behind’ with projective functions. When in a genitive phrase with the associative construction, *zek nan* ‘back of’ and *mwo nan* ‘front of’ refer to inherent asymmetries of an entity and also express regions behind and in front of an entity, thereby demonstrating they also have projective functions. In (24) *zeknan* describes a facet of the truck. The Director describes an animal¹² standing on the back of the truck (Figure 5.18) which contrasts with another

¹² The speaker describes a dog in the truck although the picture shows a cow.

picture in the set where the animal is standing on the cab at the front (Figure 5.19). The two pictures are shown below.

- (24) *bwóblievwuk* *a=pet* *zekna-n,* *lo-n*
 dog 3SG. PFV=stand behind.ASSOC-CONST in-CONST
sihlie-n *tagaviet,* *mre*
 leg-CONST four up
 ‘The dog stood at the back, in the truck, on top.’ (2009-05-01-00462au-cwrp)



Figure 5.18 Men and Trees. Game 1 Picture 12



Figure 5.19 Men and Trees. Game 1 Picture 11

In (25) *zek* codes the region behind the entity: the vector is projected from a facet of the pigs in an object-centred FoR, illustrated in Figure 5.20.

- (25) *azó* *a=pet* *zek na-n* *bwó* *nier*
 man 3SG.PFV=stand behind.ASSOC-CONST pig PL
 ‘The man stood behind them (the pigs). (2009-05-01-00463au-cwrp)



Figure 5.20 Men and Trees. Game 2 Picture 2

Zek and *mwo* are used to contrast the positions of the men in relation to each other in example (26). The picture being described by the Director is shown in Figure 5.21 where both men are facing the same direction.

- (26) *qa* *m=pet* *zek* *ae* *qa* *m=pet* *mwo*
 PRON 3SG.IPFV=stand behind CONJ PRON 3SG.IPFV=stand infront
 ‘One is standing infront and one is standing behind.’ (2009-05-12-00541-au-ptjt)



Figure 5.21 Men and Trees. Game 3 Picture 3

Recalling Chapter 3.8.2 where it was outlined that *zek* and *mwo* are sensitive to their temporal meanings when used in motion and location expressions, these examples support these findings by showing that the terms can only be used in specific configurations. Note that the men must be facing the same direction. Only Figures 5.21 and 5.22 and not 5.23 could depict the spatial description given in (26). Figure 5.23 does not match the description and was rejected as a possibility on the basis that the men are facing different directions.



Figure 5.22 Men and Trees. Game 3 Picture 5



Figure 5.23 Men and Trees. Game 4 Picture 5

These examples provide evidence that *mwo* and *zek* are used in the object-centred FoR and not in a relative FoR, as there is no projection of body axes of the speaker on to the Ground.

Section 5.5 of this chapter has given examples of how spatial language is used in Men and Trees descriptions. The next section will look out how the different FoRs and topological strategies combine to locating and orient entities.

5.6 Analysing Composite FoRs

Ske speakers combine spatial descriptions involving different FoRs; geocentric, object-centred and direct FoRs and topological expression have been shown above to interact. This is not uncommon in Austronesian languages, as mentioned above also. Here we examine them within the revised FoR typology. Below, types of composites are looked at in turn to examine how deictic and geocentric expressions combine with types of spatial reference.

5.6.1 Types of Composite FoR

In the M&T data, consultants used direct, object-centred and geocentric FoRs in addition to topological references to describe the entities in the pictures. The FoRs and topological expressions combined as shown below.

Table 5.4 Table showing how elements combine in a Composite FOR

direct FoR + topological expression	A directional or demonstrative combines with a one of the bound relational nouns which expresses a facet, but not an asymmetry of an entity. An asymmetry is bestowed on the facet. Relational noun has the function of Ground. The deictic expression provides vector direction.
Direct FoR + object-centred FoR	A directional or demonstrative combines with an already well-formed angular spatial reference expressed by a bound relational noun referring to an inherent asymmetry. Vectors must align.
Direct FoR + geocentric FoR	A directional or demonstrative combines with an already well-formed angular spatial reference expressed by a geocentric term or <i>la zeh / lon oza</i> . Vectors must align.
Geocentric FoR + topological expression	A geocentric combines with a bound relational noun, which does not express an asymmetry of a facet, and bestows an asymmetry on it. The bound relational noun has the function of Ground. The geocentric expression provides vector direction. Similar to direct + topological expression composite above.
Geocentric FoR + direct FoR +	A geocentric term combines with a bound

topological expression	relational noun, which does not code an asymmetry, and a directional or demonstrative. Asymmetry bestowed by vector information. Vectors of geocentric and direct FoRs must align.
------------------------	--

Topological and object-centred FoRs cannot combine as they both refer to the Ground (and either an asymmetry of the Ground or a facet which is not an asymmetry). Geocentric and direct FoRs can combine with topological expressions. They thus provide the vector which draws the topological reference into an angular one, by bestowing on it an asymmetry. However, object-centred and geocentric FoRs were not found to combine. On the other hand, the direct FoR was found to combine with both geocentric and object-centred FoRs. This indicates that there is a special property of the vector that is motivated by deictic reference: it is compatible with other types of vector. In the cases when different FoR strategies combine, such as geocentric and direct FoRs in a composite strategy, the vectors align such that, for example, ‘downhill’ is also ‘towards me’. Or, when an object-centred and direct FoR combine, ‘behind the truck’ is also ‘towards me’. The result is that a strategy which used a binary relation to locate the Figure becomes a ternary relation (with the addition of a vector or an asymmetry), but a strategy which already involved a ternary relation remains ternary: vectors which are calculated from different sources align and reinforce the already well-formed expression. New angles and perspective are not incorporated.

Examples of some of the combinations listed above are shown below. A direct FoR alone is shown in (27, 28, 29), then a direct FoR in combination firstly with a topological relation expression (30), and then with an object-centred FoR (31, 32), and finally with a geocentric FoR (33). In (34) the composite strategy involves a direct FoR, a geocentric FoR and a topological expression. In (35) a geocentric FoR combines with a topological expression; the directional verb in this example is not used contrastively here so a direct FoR was not coded as part of the composite strategy in such phrases.

We also look at whether the expressions locate or orient an entity. Locating an entity involves locating it on the horizontal axis and describing in which of the positions, sagittal or lateral to the Ground, the Figure occurs (*south of the tree, north of the tree, towards me of the tree*). Orienting an entity involves indicating how it is positioned in relation to a picture-internal entity (*behind the pig, at the side of the tree*) or identifying the way it is oriented to a picture-external cue (*facing south*).

In (27) the direct FoR locates the entity by indicating where on the sagittal or lateral plane the man is positioned with respect to another entity: the SAP. The vector originates from the SAP and is projected from here. In the example below, a sagittal location is expressed and is specified as being on the side towards the speaker.

- (27) *azó* *m=pet* *me*
 man 3SG.IPFV=stand come
 ‘The man is standing towards me.’

In (28) the direct FoR provides orienting information. It is unclear where in relation to the other entity the speaker is located, but we know his orientation: he is facing us.

- (28) *mwe=krav* *me*
 3SG.IPFV=look come
 ‘He’s facing towards us.’

In (29) a direct FoR is expressed with contrastive demonstratives. Horizontal space is partitioned and the position of each man is specified on the sagittal plane. The expression functions to locate the men.

- (29) *qa* *m=pet* *en=ne* *qa* *m=pet*
 PRON 3SG.IPFV=stand place=PROX2, PRON 3SG.IPFV=stand
 en=dae
 place=DIST
 ‘One is standing here (close to me) and one is standing there
 (further from me).’

In (30) a deictic expression combines with a bound relational noun which does not refer to an asymmetry of the Figure. An inherent asymmetry is bestowed upon the entity in combination with the deictic expression: ‘the towards-me side’. The expression serves to locate the man in the sagittal half of space, towards the SAP.

- (30) *azó* *a=pet* *pasira-n* *bwaudia* *me*
 man 3SG.PFV=stand side-CONST tree come
 ‘A man stood on the side of the tree going towards me.’

In (31) the bound relational noun *waló* ‘behind’ refers to an asymmetry of the Figure. The demonstrative marks the noun. The original object-centred reference orients the Figure, the tree, in relation to the pigs’ backs but does not locate it in a particular half of space on the horizontal axis. The deictic form indicates a distant place but does not provide information which locates the Figure in relation to a picture-external entity. The description remains one that orients the Figure.

- (31) *bwaudia* *m=pet* *ba* *walo-r=dae*
 tree 3SG.IPFV=stand go back-3PL.POSS
 ‘The tree is standing at the their backs there/that way’

The example in (32) below shows two spatial expressions in two adjuncts: one is a topological expression and the second is a composite strategy. In the composite FoR, a directional combines with a locational relational noun *zek* ‘after/behind’ in an already well-formed object-centred reference. The object-centred reference orients the Figure by placing it behind the man. The directional locates it on the horizontal plane sagittal to the SAP. The description becomes a locational one.

- | | | | | | |
|------|----------------|---------------|------------|-----------|-------------|
| | | [Adjunct 1 |] | | [Adjunct 2] |
| (32) | <i>m=pet</i> | <i>povohe</i> | <i>azó</i> | <i>me</i> | <i>zek</i> |
| | 3SG.IPFV=stand | near | man | come | behind |
- ‘It’s standing near the man, behind (him) towards me.’

In (33) a well-formed geocentric reference combines with a deictic expression when a demonstrative enclitic attaches to the locational noun, *basiv* ‘down’. The geocentric expression locates the Figure on the horizontal plane. It is not clear how the Figure is oriented with respect to another entity in the picture and the demonstrative does not provide this information. The combined expression continues to provide locational information.

- (33) *m=pet* *en=dae* *basiv=dae*
 3SG.IPFV=stand place=DIST down=DIST
 He’s standing over there, northwards there.’

In (34) below, the deictic information is expressed by a directional. This example is similar to (30) above in which a direct FoR located the Figure on the ‘side of the tree towards me’. Here however, the direct FoR combines with a geocentric term which supplements the already well-formed expression. A geocentric FoR alone here (i.e. without the directional) would serve to locate the Figure and as we saw in (30) the expression also located the Figure. Here in (34) the composite FoR locates the Figure again. In this example, the bound relational noun again refers to the Ground and the vectors calculated by the direct FoR and the geocentric FoR align and are projected a direction which is correct for both expressions.

- (34) *azó* *a=pet* *pasira-n* *bwaudia* *me* *siv*
 man 3SG.PFV=stand side-CONST tree come downwards
 ‘A man stood on the side of the tree going north towards me.’

Finally, a geocentric FoR combines with a topological expression in (35). Unlike (34) above, the directional, *ba*, was not used contrastively (a geocentric FoR may also combine with a object-centred expression in a relative clause where there is no motion verb at all). The geocentric FoR bestows an asymmetry on the Ground and locates the Figure on the horizontal axis.

- (35) *azó a=pet pasira-n bwaudia ba siv*
 man 3SG.PFV=stand side-CONST tree go downwards
 ‘A man stood on the side of the tree going north.’

5.6.2 Composite FoRs and Rotation Sensitivity

Considering the rotational sensitivities of geocentric, direct and object FoRs (Table 5.2 above) we propose that the composite FoRs taken as the sum are sensitive to the rotational sensitivities of their parts. In other words, if a direct FoR is sensitive to the rotation of the Figure or Ground and a geocentric FoR is sensitive to rotation of the Figure-Ground array, then a composite FoR comprised of a geocentric and a direct FoR should be sensitive to Figure or Ground rotation and Figure-Ground array rotation. Here we take the examples of composite FoRs given above and investigate their sensitivities to the rotation of their parts.

In (30) *a=pet pasira-n bwaudia me* (topological+direct) is sensitive to the rotation of the Figure, or Ground (direct FoR sensitivities) but not of the Figure-Ground array. In the latter case, the description remains true, as shown in Figure 5.24 below. Bound relational nouns which do not refer to an inherent asymmetry are not sensitive to rotation; they acquire asymmetries once they are part of a composite.

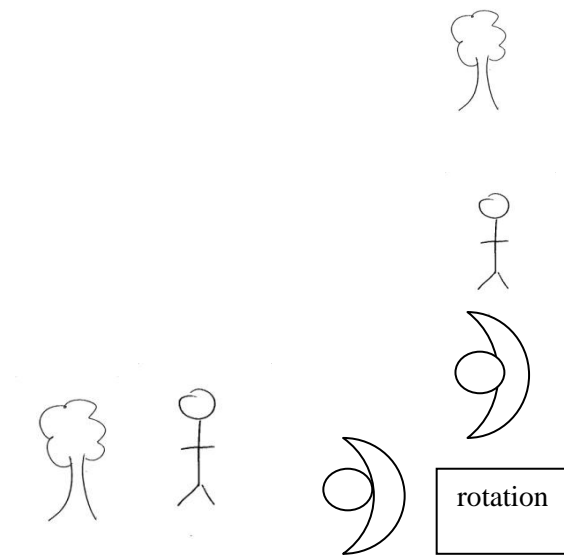


Figure 5.24 Topological Expression and direct FoR Composite Under Rotation of F-G array

In (32) *me zek* (direct+object-centred) where the direct FoR is coded by the directional, the composite form is sensitive again to rotation of the Ground array (direct FoR and object-centred FoR) and the rotation of the speech participant (direct FoR sensitivity).

In (34) *pasira-n me siv* (topological+direct+geocentric) the composite is sensitive to rotation of SAP (direct FoR sensitivity), rotation of Ground (direct FoR sensitivity) and rotation of Figure-Ground array (geocentric FoR sensitivity).

In (35) *pasira-n ba basiv* (topological+geocentric) the composite is sensitive to rotation of the Figure-Ground array (geocentric FoR sensitivity).

When a direct FoR, in the form of an expression involving non-contrastive demonstratives, combines with another FoR, it is not clear if or to what extent rotation affects the truth of the description. If the speech participant is rotated by 90 degrees is the description still valid? Some examples are given below.

In (31) *walo-r=dae* (object-centred+direct) is sensitive to rotation of the Ground (object-centred FoR and direct FoR sensitivity) but is it sensitive to the rotation of the speech participant (direct FoR sensitivity)?

The same problem arises with (33) *basiv=dae* (geocentric+direct). The description is clearly sensitive to rotation of the Figure and Ground array (geocentric FoR sensitivity), but is it sensitive to rotation of the speech act participant?

Further research is required to ascertain to what extent demonstratives, when not used contrastively can constitute a direct FoR, on the basis of rotation sensitivity tests.

5.6.3 Composite FoR Use in Discourse

The data from the M&T games was coded as described in 5.3 above. The table below shows which FoRs Ske speakers used to locate entities in the Men and Trees games.

Data from the table shows that the load for locating entities in space using non-composite FoRs relies heavily on geocentric FoRs, with 41% of expressions which functioned to locate entities utilising this FoR. Only 14% of direct FoR expressions located entities,

and topological expressions and object-centred FoRs in non-composite expressions were not able to locate entities.

However, composite strategies were very useful in locating entities: a combined total of 46% of expressions which served to locate entities came from composite FoRs. This exceeds the number which came from geocentric FoRs.

Table 5.5 Strategies used by Ske speakers to Locate Entities in Men and Trees Task

	<i>Strategy</i>	<i>Token</i>	<i>% (to nearest whole)</i>	<i>Combined totals of composite/ non-composite FoRs</i>
Non-composite	Topological expression	0	-	51%
	Geocentric	79	41	
	Direct	27	14	
	Object-centred	0	-	
Composite	Geocentric + Direct	33	17	46%
	Geocentric + Topological expression	17	9	
	Geocentric + Object- centred	0	0	
	Direct + Object- centred	5	4	
	Direct + Topological expression	12	6	
	Geocentric + Direct +Topological expression	20	10	
	TOTAL	192	100	97

The following table shows which strategies were used by speakers to orient entities in the Men and Tree games (Table 5.5). Here the story is quite different. By far the majority of expressions which served to orient entities came from non-composite FoRs: 87% in total.

Geocentric FoRs (42%) still predominated, however all other non-composite strategies: topological expressions, object-centred and direct FoRs contributed equally.

In contrast to their role in locating entities, outlined above, composite strategies were not useful in orienting entities; only 12% of composite FoRs oriented entities in the study.

Table 5.6 Strategies used by Ske speakers to Orient Entities in Men and Trees Task

	<i>Strategy</i>	<i>Token</i>	<i>% (to nearest whole)</i>	<i>Combined totals</i>
Non-composite	Topological	25	13	87%
	Geocentric	82	42	
	Direct	17	9	
	Object-centred	23	12	
Composite	Geocentric + Direct	25	13	12%
	Geocentric + Topological	0	-	
	Geocentric + Object-centred	0	0	
	Direct + Object-centred	9	5	
	Direct + Topological	14	7	
	Geocentric + Direct + Topological	0	0	
	TOTAL	195	100	99%

The tables show that there is no preference for orienting entities over locating entities. The geocentric FoR is by far the most dominant FoR in the Men and Tree task. Topological references cannot locate entities but they were used to a high degree to orient entities in the photographs. In fact, photographs which featured balls and baskets, for example, where neither entity has an asymmetry, produced most of the topological reference in the data. Object-centred references cannot locate entities but were frequently used in orientation descriptions, though only when an entity has an inherent asymmetry

for the reference to draw on. What is clear from the data is that Ske speakers make significant use of composite FoRs, but predominantly in location descriptions. Bearing in mind the tasks were designed to maximize non-deictic spatial reference it is not surprising that we find a high degree of geocentric language. What is surprising is how much deictic language is used. The direct FoR is the only one of the FoRs to be found in both orientation and location descriptions in composite FoRs where it combines with other FoRs or topological expressions to produce viable information. The only exception is in orientation information with a geocentric, topological and direct FoR composite, however this combination is precluded as the geocentric FoR and topological reference do not combine to orient a Figure.

The data shows that non-composite FoRs, i.e. the ‘traditional’ FoRs are the dominant form of expression used to orient entities, however, Ske speakers resort to composite FoRs in addition to non-composite geocentric FoRs to locate entities in space. Note that the relative FoR, a tool not available to Ske speakers, is used in languages by speakers to whom it is available to both locate and orient entities in space. Ske speakers have adequate tools in their repertoire to both locate and orient entities without using the relative FoR because they are able to make use of composite FoRs.

5.7 Summary

This chapter has presented a case study of FoR usage by Ske speakers. Despite the stimuli kit being designed to preclude deictic language and gesture, deixis was found to be an important strategy in both orienting and locating entities.

When used contrastively, directionals and demonstratives have been found to participate in the direct FoR (Danziger 2010) and also to combine with other FoRs where they can add deictic information to a well-formed spatial expression and sometimes change the function of that expression from orientating to locating. The high number of bound relational nouns in Ske which occur in topological expressions also combine frequently with the geocentric and direct FoRs to form an angular spatial expression.

It was suggested that a property of the Direct FoR vector which allows it to combine freely with other spatial referencing strategies was that it could align with other vectors,

and that geocentric and object-centred vectors cannot. This is a possible explanation for why there is no composite geocentric and object-centred FoRs in Ske.

Levinson & Wilkins (2006) suggest that speakers of languages which do not use the relative FoR do not do so because the absolute FoR is available to them; an absolute system ‘can then make the relative frame of reference irrelevant and unnecessary’ (2006: 23). The data presented here finds that whilst the geocentric FoR is the dominant strategy in this case study, there may also be a link between the dispreference for a relative FoR and a) the large number of bound relational nouns which can combine with FoRs to generate angular spatial expressions, and b) the promiscuous nature of the direct FoR, making it possible to form composite FoRs in Ske. The relative FoR is not unnecessary and irrelevant in Ske because of the availability of the absolute FoR, but because other composite FoRs are available instead.

The following chapter examines the geocentric referencing system in physical, inhabited space.

Chapter 6

When Uphill Means Downhill:

Geocentric Referencing in Ske

6.1 Introduction

The focus of the previous chapter was on the range of Frames of Reference available to Ske speakers. How they are used and for what functions, was tested by a set of stimuli, the MPI Men and Trees Games, which operates in small, table-top space. In the very small-scale space the stimuli games were played in, speakers predominantly employed geocentric descriptions, that is, they used a co-ordinate system which contrasts a coastal axis and an uphill-downhill axis to locate and orient the entities in the photographs. Studies show that the geocentric referencing systems in Oceanic languages operate on different scales, of which small-scale space is just one. The directions indicated by the geocentric terms from one scale to the next, for example in large-scale space such as far out to sea or small-scale space around the village, may be very different from each other. Additionally, where these scales interact, ambiguities frequently arise. For this study, the picture of how spatial referencing operates in table-top space was subsequently checked to see if it had parallels in the wider world: for how Ske speakers navigate and talk about locations in the physical space they inhabit. Findings showed that different systems operated to that in table-top space. In Ske, one result of this is that a direction or location described as ‘uphill’ or ‘downhill’ may refer to the entirely the opposite direction in a different, or even in the same, scale of space.

This chapter is laid out as follows. In section 6.2, literature on geocentric referencing systems in Oceanic languages is reviewed. With reference to the Proto-Oceanic system and terms, the motivation for how the systems operate and are lexicalized in languages spoken today will be presented. Reference to how they operate in other areas of Vanuatu will be given as both an introduction and a comparison to how they function and are lexicalized in Ske. In 6.3 the geocentric referencing system of Ske is examined and the different scales of space are looked at in turn. We examine how they function in different

settings, where they overlap, where they disintegrate and where they seem to contradict. In 6.4, I will look at these scales in the context of the revised Frames of Reference typology (Danziger 2010; Bohnemeyer 2008, 2011; Bohnemeyer & Levinson 2011) in which use of landmark-based and cardinal term vectors which were previously classed as strategies belonging to the absolute Frame of Reference is reconsidered. Analysis of how vectors are calculated in local-scale space will support the findings of this revised typology by showing that spatial references which use the same geocentric terms may belong to either an absolute or geomorphic Frame of Reference; this revision thus provides explanations for the uphill-downhill anomaly in Ske whereby opposite directions can be indicated using the same terms.

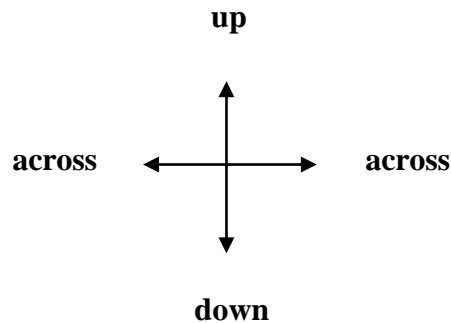
Data for this chapter was collected by both elicitation and observation in villages and gardens of the Ske-speaking area, as well as on other islands and at sea. The villages visited during the process were largely coastal and the gardens were based further inland. Route descriptions were recorded in which speakers recalled the paths we had walked together that day; sometimes through the village, around the gardens and back, or on hours-long, cross-river trekking-expeditions to other villages. Other data came from narratives about events rooted in inhabited space, such as when a family had to flee and rebuild their house after a hurricane and floods; or from speeches in which people who had traveled long-distances to weddings or other celebrations were talked about and thanked. As François (2004) also found in Mota Lava, descriptions which included spatial reference in Ske conversations were ubiquitous. Data on this topic was abundant and it is evidently a very relevant reference point for Ske speakers to make sense of many aspects of daily life.

6.2 Geocentric Direction in Oceanic Languages

Common to Oceanic languages is a geographic directional system which divides the environment along two axes (François 2004, 2003; Ross 2003, 2004b; Hyslop 2002). Historical reconstruction finds that Proto-Oceanic (POc) made a distinction between three directions: direction up and down a vertical axis (expressed using different terms) is crossed by an undifferentiated transverse axis (opposite directions along the axis are

expressed with the same term). Ross (2003) reconstructs and discusses the usage of three Proto-Oceanic directional verbs used to express this three-way system (Fig. 6.1). The PoC transverse directional verb is also reconstructed as a verb of deictic direction with the meaning of in a direction ‘away from the speaker’.

Figure 6.1 Proto-Oceanic Geocentric Spatial Axes and Terms



up: **sake* ‘go upward’

down: **sipo* ‘go downward’

across: **pano* ‘move transverse direction’

Oceanic languages usually have two sets of geographic systems: one land-based and one used at sea, each of which have two separate subsystems (Ross 2004; François 2003, 2004; Hill 1997).

Ross (2003: 221) claims that for the system used on land, communities based around a river valley could describe motion up or down the inclined sides of the valley using, respectively, **sake* ‘up’ and **sipo* ‘down’, with directions along the trench of the valley corresponding to **pano*. In coastal settings, direction along the coast corresponded to the neutral traverse axis **pano* and from the land to sea thus corresponded to the horizontal axis, with towards the sea expressed as ‘down’ and towards land as ‘up’.

However, for the system based at sea, Ross (ibid) continues, one axis, oriented north-west to south-east, is used. Either this is expressed by the POc terms for the south-east trade wind (POc **raki*) and the north-west storm winds (POc **apaRat*), or the river-

valley system is transposed on to the sea with **sake* ‘up’ referring to south-east and **sipo* ‘down’ referring to north-west.

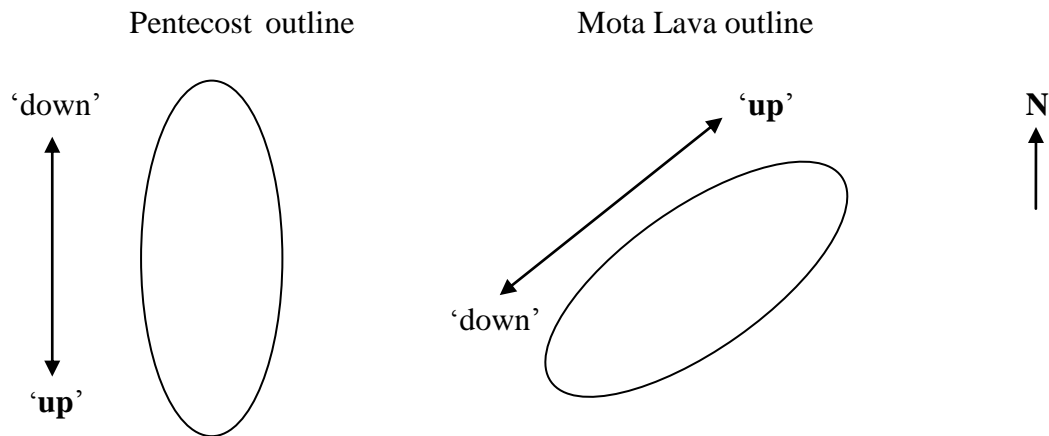
François (p.c) finds differently, suggesting that there are two ways to use the up-down axis at sea. Firstly, on the cardinal axis SE-NW, and secondly, as a continuation of the land-sea axis when out to sea. The second can be described as ‘transposition’ of the axis of the land-sea system but the first is in no way a transposition of the land-sea system; ‘it is conceptually and historically independent from the second way and the from the land-sea system’.

Often the terms for the directions along the sea-based axis have been translated as ‘east’ and ‘west’ giving rise to assumptions that the motivation for the orientation of the axis is the path of the sun (Ross 2004; Palmer 2002; Ozanne-Rivierre 1997;) however, after comparison of a number of Oceanic languages’ synchronic usage of directional terms, François (2004) presents a hypothesis that the motivation behind its orientation is the direction of the trade wind, blowing south-east to north-west. Furthermore, he offers a unifying theory¹ behind the seemingly confusing ways of describing direction along coastlines (see Figure 6.3 and Maps 6.1 and 6.2 below).

As we will go on to discuss, whilst the systems in different islands operate largely along the lines of the POc system described above where a land-sea axis and a coastline axis cross each other, how these directions are referred to can seem at odds in different languages; as an introduction, the Figures below show how directions on Mota Lava in the Banks island group of northern Vanuatu and on Pentecost are described.

¹ The unifying theory accounts for apparently different systems by proposing four stages of development which sees axes or terms for axes altering. Chambers (2009) observes that this implies instability of a system which François (ibid) proposes is labelled as at an early stage. This is problematic as the systems of some languages, such as Saliba, as François (ibid) recognises, have probably remained at one of these so-called early stages for years.

Figure 6.2 Directions ‘up’ and ‘down’ along coastlines of Pentecost and Mota Lava

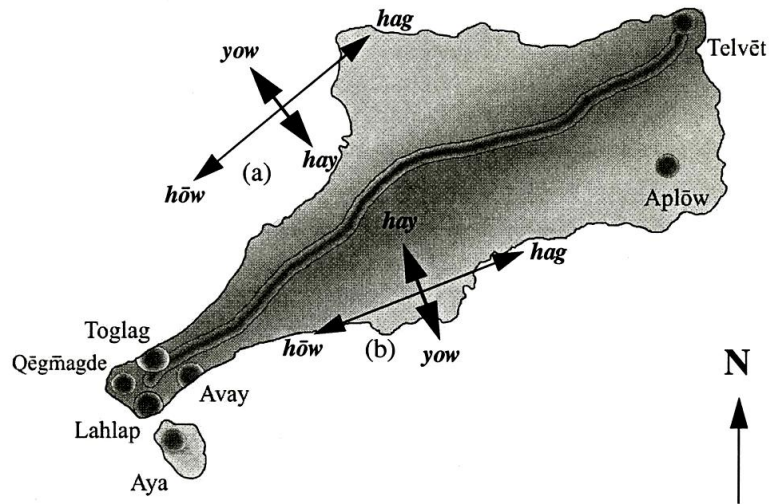


In Figure 6.2 line drawings represent the outline and orientation of the islands of Pentecost and Mota Lava. They are shown with the directions that are referred to as ‘up’ and ‘down’ along their coastlines. A southerly direction along the coast in Pentecost is referred to as ‘up’, but a seemingly very different direction along the coastline of Mota Lava is also referred to as ‘up’.

Some examples of how the directional system operates in Vanuatu are given below, with data from the Banks in Mwotlap (François 2003); from Ambae in the Lolovoli dialect of North-East Ambae (Hyslop 2001) and from central Pentecost in Apma (Schneider 2010) and then my data from Ske, spoken in south Pentecost.

Maps 6.1 and 6.2 show the islands of Mota Lava and Ambae, respectively, and are illustrated to show how the speakers of Mwotlap (Mota Lava, Banks) and the Lolovoli dialect of North-East Ambae (Ambae) refer to directions around the islands. The term on each arrow, the unmarked form of a directional, indicates motion or location in the direction specified on the map.

Map 6.1 Directions and Directionals in Mwotlap on Motlava, Banks Islands

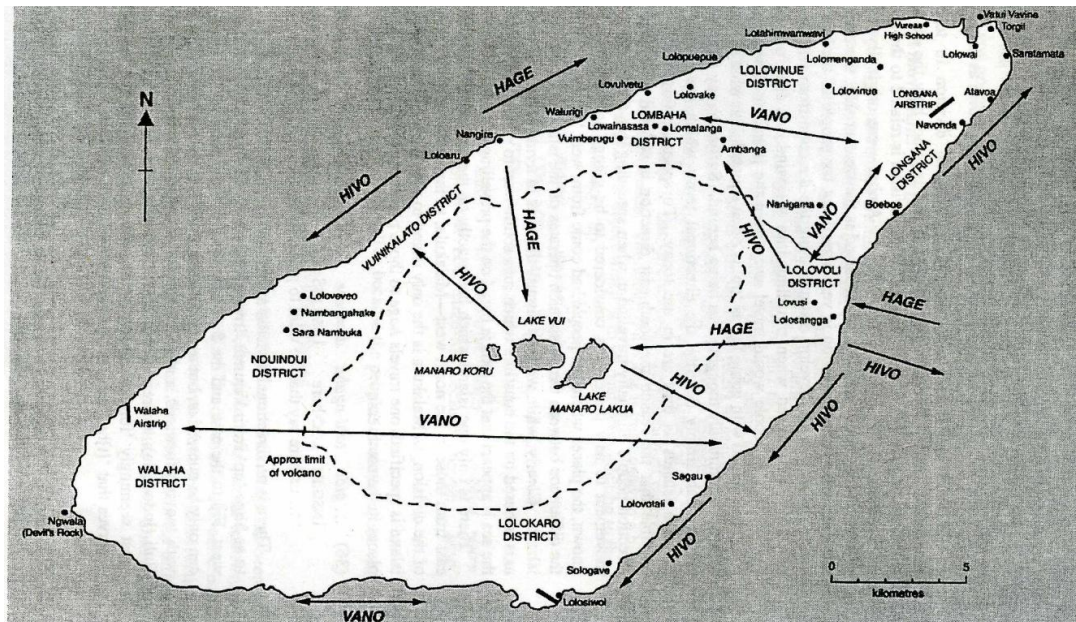


Mwotlap has a set of four directionals: *hōw*, *hag* and *yow*, *hay* to distinguish between four directions along two axes. As predicted by the POC system, one axis runs parallel to the coastline and the other crosses it and indicates opposite directions between land and sea. Along the coastline axis *hag* reflects POC *sake* ‘up’ and *hōw* reflects POC *sipo* ‘down’. Along the traverse axis *hay* ‘in’ and *yow* ‘out’ indicate directions towards the land and towards the sea. The terms on the land-sea axis invert on each side of the island, as if reflected down a central line so that *hay* always indicates the direction towards the land and *yow* towards the sea. In contrast, *hōw* and *hag* continue to indicate the same directions along the coastline (approximately southerly and northerly directions, respectively).

In the Lolovoli dialect of North-East Ambae three directions are distinguished along the same two axes, again following the POC directional system. The map shows *hivo*, a reflection of POC *sipo* ‘down’ and *hage*, a reflection of POC *sake* ‘up’, refer to directions along the coastline as well as directions up and down to the volcano crater and other areas on land. Another term *vano*, which reflects POC *pano* ‘traverse’, indicate directions across the land and the southern coastline².

² Hyslop (2002: 63) comments that the topography of Ambae causes variations which ‘have made it difficult to determine what the exact system for specification of direction is within Ambae’.

Map 6.2 Directions and Directionals in North-East Ambae on Ambae (from Hyslop 2002)



Turning now to directions along Pentecost, here, the two axes again mirror those found in POc: one axis runs along the coastline and the other perpendicular to it, towards land and towards the sea. Pentecost's coastline runs in a north-south direction as shown in Map 6.3.

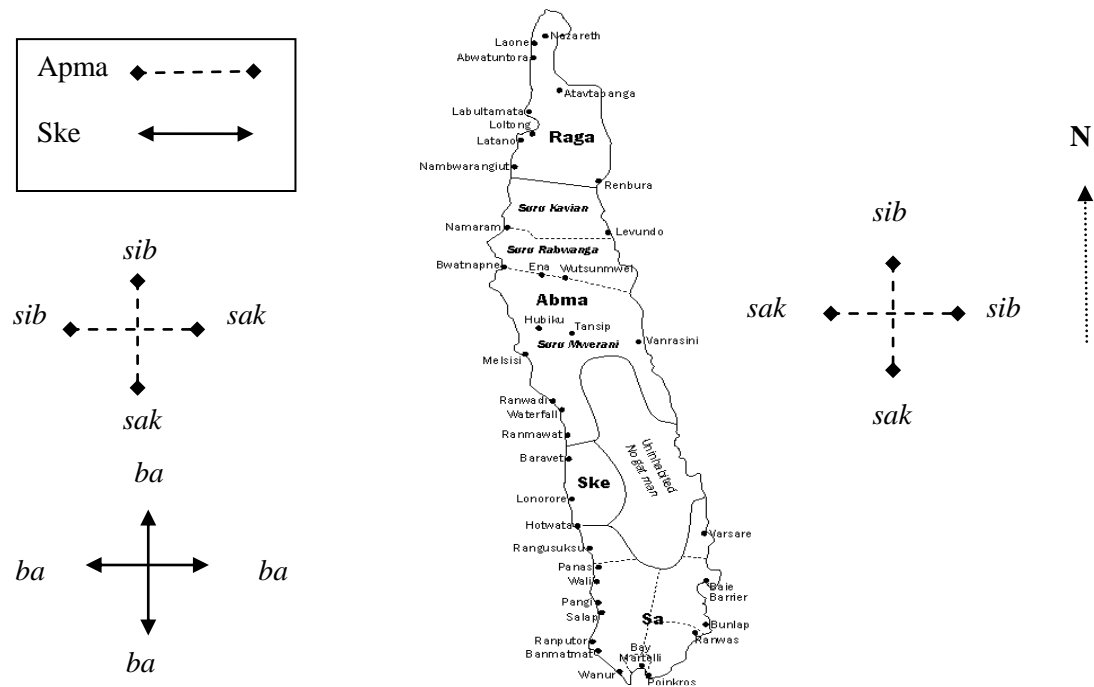
We first take an example from Ske's northern neighbour, Apma³. In (1) the speaker describes their direction of motion with the geographic path verb *sib*⁴ 'go down' to signal travel further north. Bearing in mind the orientation of Pentecost island which runs in a north to south, for Apma speakers to travel along the coastline in a northerly direction thus constitutes traveling 'down'.

³ Schneider (2010) does not include a detailed picture of geocentric directions in her thesis, it being a grammar of the language. However some of her data points to the same system in use here as described in Mwotlap, N.E Ambae and in Ske. Andrew Gray, who lived in the area for some years and has written various materials on Apma and other Pentecost languages as well as co-authoring an article with Cindy Schneider has confirmed that the Apma system runs parallel to those others described here.

⁴ This spelling is taken from Cindy Schneider's thesis. Andrew Gray reports that [p] and [b] are separate phonemes and his data reflects this. However Cindy finds that technically there is just the /b/ phoneme, which sounds like [b], except syllable-finally, when it sounds like [p] although there is possibly one exception to the rule. Having said this, Cindy adds that Apma speakers are used to their spelling traditions and so both 'p' and 'b' are used in written materials, both for the community and for academic purposes, subsequent to her thesis. Cindy Schneider (p.c).

- (1) *kaa=m* *sib* *Kihib*
 1PL.EXCL=IPFV go.down North Pentecost
 ‘We’re going down to North Pentecost.’ (Schneider 2008: 105)

Map 6.3 Terms and Directions in Apma and Ske on Pentecost



Andrew Gray (p.c) also reports that in Apma travel north, downhill and towards the sea obligatorily involves using the verb *sip* ‘go.down’, which is a reflection of POc *hivo* ‘down’. Travel south, uphill and in a landwards direction is expressed by ‘sak’, which reflects POc *sake* ‘up’, as shown in (2) where someone is traveling along the coastline in a southerly direction and the speaker asks if they are traveling to the airport, in south Pentecost.

- (2) *kom* *sak* *li* *saa?*
 2SG.IPFV go.up LOC field
 ‘Are you going to the airport?’

A set of local nouns also operate within the system with *kihib*⁵ referring to north Pentecost and *kihak* referring to south Pentecost along the coastline axis. There are also local nouns *suuta* referring to a seawards direction and *sakumre* referring to a landwards direction on the land-sea axis.

The system is retained in Ske also but, as is shown in Map 6.3 above, directions along the axes are expressed using the verb *ba* which reflects the undifferentiated traverse axis only. The ‘up’ and ‘down’ axis terms are however preserved in the local nouns which refer to directions and locations along the coastline, as will be discussed further in section 6.3.

Returning then to the question of what motivates the position of the axes and how to find some uniformity amongst the systems of different languages, we first consider the direction of the arrows, or more precisely, the axes and where they cross. On the maps it seems clear that for all the languages discussed here, as well as those in the collection analysed by François (2004), the axes run alongside and perpendicular to the islands’ coastlines, but unlike a North-South-East-West axis which remains fixed regardless of topology, these axes alter according to the orientation of the islands. Indeed as Palmer (2002: 113) comments regarding the system in Longgu (South-East Solomonic) ‘the possibility that the relationship between the bearings of these crossed axes and the coastline is coincidental can be ruled out’. François (2004) finds this is also the case as Mwotlap speakers adjust the system when they travel to different islands to the orientation of the new coastlines (2003: 427-428). This is found also for speakers of N.E Ambae (Hyslop 2002) and was true also for Ske speakers when on other islands.

Secondly, regarding the terms on the axes, these are directionals which reflect proto-Oceanic directional verbs **pano* ‘go across’, **sipo* ‘go downward’, and **sake* ‘go upward’ as shown below. Except for Ske where the POc terms are reflected elsewhere in the lexicon yet preserve the system, as we will see below in Table 6.1

⁵ Or *kihip*, see footnote 4 above.

Table 6.1 Reflections of POc Directional Terms in some Vanuatu Languages

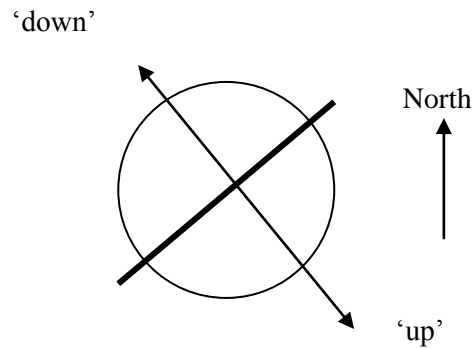
POc	<i>*pano</i> ‘go across’	<i>*sipo</i> ‘go downward’	<i>*sake</i> ‘go upward’
Mwotlap	-	<i>how</i> ‘down’	<i>hag</i> ‘up’
Ambae	<i>vano</i> ‘across’	<i>hivo</i> ‘down’ and ‘seawards’	<i>hage</i> ‘up’ and ‘landwards’
Apma	(rarely used)	<i>sip</i> ‘down’, ‘downhill’ and ‘seawards’	<i>sak</i> ‘up’, ‘uphill’ and ‘landwards’
Ske	<i>ba</i> ‘go (any direction)’	Reflected in locational and directional terms (not in the verb)	Reflected in locational and directional terms, not in the verb)

Therefore, the terms which reflect the POc term for ‘go downward’ indicate a more southerly direction in N.E Ambae and Mwotlap and in the case of North-East Ambae, a direction down the hill and towards the sea also. Similarly, the terms reflected from the POc term for ‘go upward’ indicate a more northerly direction and, in North-East Ambae an uphill direction, away from the sea. The reflexes of **sipo* and **pano* in both Mwotlap and Ambae are polysemous, indicating a direction along the coast and the direction on a vertical axis. However, in Ambae they have taken on the additional meaning of ‘seawards’ and ‘landwards’, due to the steep interior of the island where travelling landwards also constitutes travelling up (Hyslop 2002: 58). This is also the case in Apma, where the ‘down’ reflex indicates downhill and seawards directions. However in Apma and in Ske, reflexes of the ‘down’ term refer to northerly directions along the coast, not southerly ones, and southerly directions are expressed using a reflex of ‘up’.

This apparent asymmetry can be accounted for by the observation that ‘up’ directions tend to take place in the south-eastern half of space (François 2004: 431)⁶, hence south-east constitutes ‘down’ in the examples given above and north-west constitutes ‘up’.

⁶ Studies suggest this is a probable result of the direction of the prevailing wind of a southerly direction, a salient feature for seafaring nations.

Figure 6.3 The Directions of ‘up’ and ‘down’ (based on François 2004: 431)



In this way describing with ‘up’ the more northerly direction along Mota Lava and Ambae, where the coastline orientations falls just below the angle of the two halves of space and is therefore located just in the south-eastern half of space, is not at odds with ‘up’ describing the southerly direction along the Pentecost coastline.

According to the theory of François (2004) the axis which lies along the coast is not primary; its orientation is incidental and orthogonal to the land-sea axis and the ‘up’ and ‘down’ terms for describing direction along the coastline are designated according to their proximity to the direction of the sea-based axis orientation. This designation of directional terms occurs in the following way: the sea-based scale, or the navigational scale, as he terms it, is divided into two halves rather than the axis being directed towards fixed points. A coastline which lies anywhere within the half designated ‘up’ will be termed as such and vice-versa.

In the Vanuatu languages Mwotlap, N.E Ambae and Apma shown above, reflexes of the POc directional verbs are also verbs. In Ske however, reflexes of the form **sipo* and **sake* are not found in directional verbs, but are reflected in locational and directional nouns instead. Ross (2004) also finds that some languages exhibit reflexes of the verbs elsewhere in the lexicon, having shifted category. Directionals (Ross 2003, 2004) are ‘morphemes which occur in verb phrases and adjuncts and may be verbs or have grammaticised into other forms or express the direction of the action expressed by the verb they follow’ (Ross 2004: 198). However Ross (ibid), also observes that the POc directional verbs have consequently been recategorised in a number of languages as

adverbs, with both locational and directional senses to acquire the meanings ‘up above’ and ‘down below’⁷.

6.3 Geocentric Reference in Ske

Focussing now on the system of geocentric referencing in Ske, the picture is not as straight-forward as described above. In fact the system is rather complex with shared local knowledge and experience meaning that pragmatics plays a large part in using and understanding Ske spatial references.

Ske motion verbs do not reflect the Proto-Oceanic directional verbs **sipo* and **sake* to indicate motion along an axis. Reflexes of these forms have been recategorised and instead Ske makes consistent use of the motion verb *ba* ‘go’, the reflex of **pano* which expresses undifferentiated motion on a traverse axis, and the terms reflecting ‘up’ and ‘down’, which refer to locations and directions occur elsewhere, most often in an adjunct.

Although when *ba* ‘go’ contrasts with *me* ‘come’ to indicate direction away from and towards the speaker, it packages deictic path information with motion, *ba* is also a directionally-neutral term. Evidence of this was presented in Chapter 3.9. Whilst *ba* can be used with contrastive deictic meaning in geocentric referencing, it is typically used in

⁷ Two further outcomes are noted: reflexes of the directional verbs have entered the locative deictic system, as in Erromangan (South Vanuatu) and reflexes of **sake* have become local nouns, as in Bauan Fiji. Local nouns are distinct from common and proper nouns (Ross 2003: 224-5) and are defined as those denoting a specific time, location or intrinsic part of something (i.e. insides of, space beneath etc.), proper placenames, temporal nouns, intrinsic parts (i.e. inside) and also nouns denoting familiar places. This category is subdivided into nouns such as home, village or garden and nouns denoting geographical directions (down below, up above). Local nouns ‘are used to express the *directions* of the vertical, inland/seaward and coastal axes of the geographic systems’ (Ross 2003: 223) (my italics) and may overlap semantically with other nouns which describe the local environment including ‘home’, ‘bush’, or ‘garden’ and are as Ross observes, part of the ‘shared experience’ of the speakers (2003: 223). Local nouns in Proto-Oceanic local construction are preceded by the preposition **i* with no intervening article, however in modern languages, whilst the local preposition is widely reflected, local nouns of many languages occur without a preposition (Ross 2003: 227).

a neutral sense⁸. The difference is that in Ske, *ba* ‘go’ has taken on the meaning of undifferentiated motion along any axis, not solely the traverse axis. For example, when seeing someone walking anywhere in Pentecost, the first question asked is about where they are going (3). The example in (4) shows a typical response.

- | | |
|--|---|
| <p>(3) <i>kmwe=ba ebe?</i>
 2SG.IPFV=go where?
 ‘Where are you going?’</p> | <p>(4) <i>mwa=ba basiv</i>
 1SG.EXCL.IPFV=go down
 ‘I’m going north.’</p> |
|--|---|

Ba is used in both the question and the response. Notably, the location ‘down’ which corresponds to a northerly direction on Pentecost is moved towards with *ba* ‘go’. As has been presented above, this would trigger the use of the directional verb which reflects **sipo* ‘go down’ in Ske’s neighbour Apma. Furthermore, although in coastal settings the POc system is said to have used **pano* to indicate a direction along the coast and the ‘down’ and ‘up’ terms along the land-sea axis, *ba* is used to describe motion in any direction along the coastal and traverse land-sea axis in Ske.

Alternative answers to the question in (3) could have been those in (5), (6) and (7).

- | | | |
|---|--|--|
| <p>(5) <i>mwa=ba basiak</i>
 1SG.EXCL.IPFV=go up
 ‘I’m going south’</p> | <p>(6) <i>mwa=ba batniaq</i>
 1SG.EXCL.IPFV=go uphill
 ‘I’m going uphill/west’</p> | <p>(7) <i>mwa=ba bamriaq</i>
 1SG.EXCL.IPFV=go downhill
 ‘I’m going downhill/west’</p> |
|---|--|--|

In (5) then, travel in a southerly direction on Pentecost in the ‘up’ half of space would trigger a directional verb reflecting **sake* ‘up’ in Apma, but in Ske, *ba* ‘go’ occurs. The

⁸ *Ba* ‘go’ may, but does not always, conflate deictic path with motion. But the other directionals *met* ‘go.ADDR’ and *me* ‘come’ always conflate motion with deictic path.

same is so when travel uphill (6) and downhill (7) is described: *ba* reflecting **pano* is used in all such descriptions. Thus in Ske, geodirectional information is not packaged in the motion verb, unlike the languages we have referred to here⁹. Two sets of local nouns instead reflect the POc directional verbs; one set expresses locations and the other expresses directions. The land-sea terms can represent entirely opposite locations and directions in small-scale space and this will be discussed further below, but in Figure 6.4 axes and terms used on land in what is, for now, termed ‘large-scale’ or ‘navigational-scale’ space, following François (2004), are given.

Considering first the coastal axis and that Pentecost’s coastline is oriented in a north to south direction, whilst bearing in mind the two halves of space (Figure 6.4), we find the following: *siv* and *basiv* which reflect **sipo*, refer to directions and locations ‘down’ or northwards and *siak* and *basiak* refer to direction and locations ‘up’ or southwards. Interestingly, **sake* is reflected in the Ske verb *sak* ‘climb/ascend’, but it has been bleached of geocentric information and is sensitive only to topography, such that it describes motion uphill only¹⁰. Turning then to the land-sea axis, *itniaq* and *batniaq* refer to directions and locations downhill and *imriaq*¹¹ and *bamriaq* refer to directions and locations uphill. Figure 6.4 depicts the scene from a coastal village in the Ske area: located on the west coast of Pentecost, with the sea therefore to the west and hills and inland areas located to the west.

⁹ Although of course, as Ross (2003, 2004) shows, this is not an isolated case.

¹⁰ *Sak* ‘climb’ does not conflate geocentric information with manner and can be used in conjunction with the Ske uphill location term *bamriaq*, regardless of which ‘half of space’ that uphill direction occurs:
mwa=saksak ba bamriaq
 1SG.EXCL.IPFV=REDUP~climb go uphill
 ‘I’m climbing uphill.’

¹¹ The land-sea axis terms describe uphill and downhill directions but unlike the terms on the coastal axis, their origins are unclear and further reconstruction is needed here. There is a term *imri* ‘bush’ referring to the dense bush area inland (and therefore uphill) which is likely to be connected with the term for ‘uphill’ *imriaq* but we find that the terms are otherwise unanalysable.

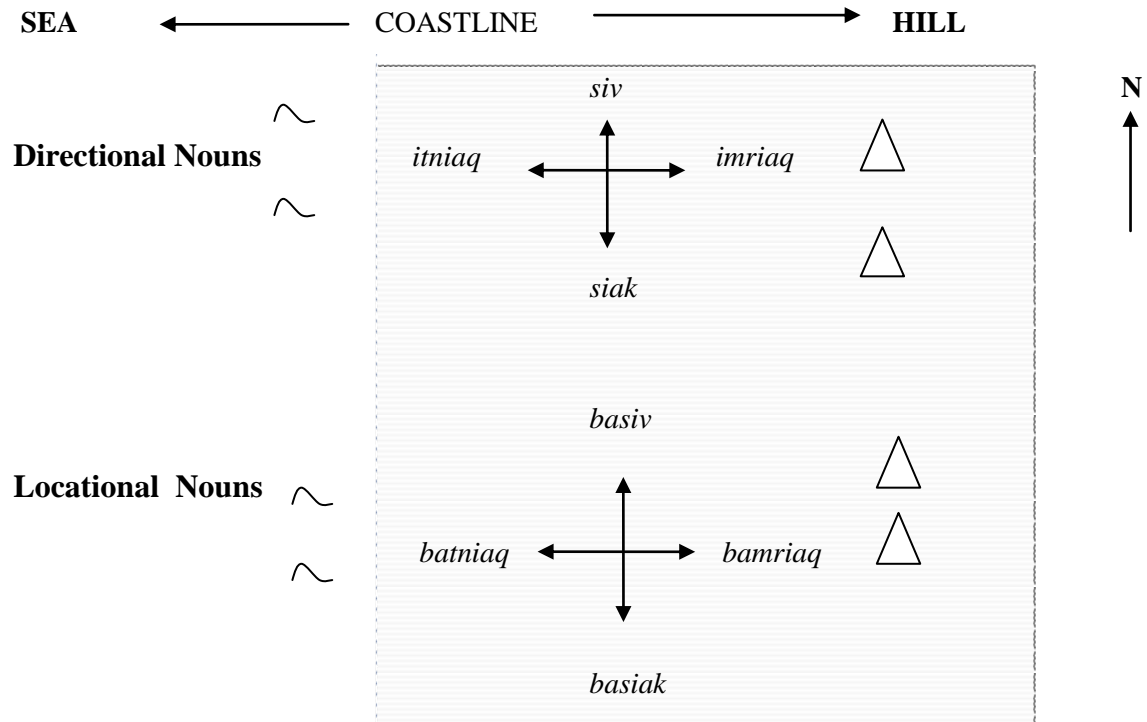


Figure 6.4 Locational and Directional Terms on coastal and land-sea axis in Ske

The locational and directional nouns have different distributions but their functions can overlap. The nouns expressing geocentric direction cannot occur unmarked by a directional verb in an adjunct which serves to indicate the direction or endpoint of a motion event, whilst the nouns expressing geocentric location can. In (8) the directional noun is unmarked in the adjunct and the locational noun is unmarked (9).

- (8) **mwa=ba* *imriaq*
 1SG.EXCL.IPFV=go uphillwards
 Intended: 'I'm going hillwards/eastwards.'

- (9) *mwa=ba* *bamriaq*
 1SG.EXCL.IPFV=go uphill
 'I'm going uphill/east.'

Both the directional and locational terms can occur in adjuncts which express directions. Here, the locational noun occurs in an adjunct where it is optionally preceded by a directional (*ba*, *me*, *met*) as in (10) and the directional noun must be preceded by a

directional (*ba, me, met*) as in (11). The examples here are shown with *ba*, although other directionals could occur here.

- (10) *m=pet* (*ba*) *bamriaq*
 3SG.IPFV=stand (go) uphill
 ‘He’s standing (towards) uphill.’

- (11) *m=pet* *ba* *imriaq*
 3SG.IPFV=stand go uphillwards
 ‘He’s standing in an uphillwards direction/towards uphillwards.’

Most commonly, the geocentric directional nouns function as modifiers. The geocentric directionals modify the head noun as part of a relative clause (12) or as phrasal modifiers where they modify the head noun attributively (13). The geocentric locational nouns cannot function as the head of a relative clause (14) and cannot function as phrasal modifiers with attributive functions (15). They can however modify a noun phrase if part of a directional phrase (in which case they are preceded by a directional (16).

- (12) *pwasin* *ne* *itniaq* *mwe=krav* *ba* *la* *zeh*
 other.one REL downhillwards 3SG.IPFV=look go at sea
 ‘The downhill one is facing towards the sea.’

- (13) *teminal* *a=rab* *de=du* *pasira-n* *udu-n*
 terminal 3SG.PFV=new 3SG.FUT=exist other.side-CONST half-3SG.POSS
siv *me*
 downwards come
 ‘The new terminal will be on the northwards half (of the airstrip) this way.’

- (14) **pwasin* *ne* *bamriaq*
 other.one REL uphill

(15) **de=du* *pasira-n* *udu-n* *basiv*
 3SG.FUT=exist other.side-CONST half-3SG.POSS down

(16) *m=pet* *pasira-n* *or* *ba* *bamriaq*
 3SG.IPFV=stand other.side-CONST fence go uphill
 ‘He is standing on the side of the fence towards uphill.’

The geocentric terms in Ske have an extra function not found in descriptions of geocentric referencing in some languages, such as the Australian language Jaminjung (Schultze-Berndt 2006) and Lavukavele spoken in the Solomons (Terrill & Burenhult 2008) who comment:

[T]hese directional terms are usually used only in large-scale space, and only to indicate location of a place or entity relative to the deictic center; to refer to direction of motion; or else to indicate direction of gaze or orientation of a faceted Figure. What is interesting to our discussion is that [..t]he direction terms are never used in order to locate a figure with respect to a ground which is not the deictic center, i.e. a ground that has to be made explicit as the reference point (e.g. ‘the man is downstream of the tree’).’ (Terrill & Burenhult 2008: 130)

Ske geocentric terms can be used for all the functions indicated above:

- Large-scale space
- Location of entity relative to deictic centre
- Direction of motion
- Direction of gaze/orientation of Figure
- Small-scale space
- Location of Figure with respect to a Ground which is NOT the deictic centre

It is the directional terms which are used for the final function listed, which is lacking in Jaminjung and Lavukavele. In (17) *imriaq* ‘uphillwards’ indicates the location of Chief Paul’s village in relation to a reference point which is not the deictic centre. The land-

diving tower is not the deictic centre, the directions in were given to me when I was going to visit Chief Paul at his house for the first time and was standing in Bwaravet, but had already been to see the land-diving near the airport about 40 minutes' walk away, so was familiar with the reference point.

- (17) *vnó na-n Jif Pol m=du imriaq*
 village ASSOC-CONST chief P 3SG.IPFV=exist uphillwards
n-an ót ne qol m=du en
 ASSOC-CONST place REL land.diving.tower 3SG.IPFV=exist there
 'Chief Paul's village is uphill of the place where the land-diving tower is.'

The geocentric directionals can also indicate an area in relation to the river (18) whereas the locational terms refer to a place along the river. In (14) and (15) Sam was describing the places along the river which are designated as men's or women's bathing areas.

- (18) *ót la ri itniaq*
 place at river downhill
 'Downhill of the river.' (st-b19-172)

- (19) *watno-n loh-an no-n dalmwo nier,*
 place-CONST bathe-NOM CL.GEN-CONST male PL
bamriaq, ae no-n ziamat nier batniaq
 uphill CONJ CL.GEN-CONST woman PL downhill
 'The men's washing place is uphill (up-river) and the women's washing place is downhill (down-river).' (st-b19-172)

For Ske speakers, the directions indicated on the axes may shift in different scales of space and according to the pragmatic inference of the utterance. The various orientations of the axes under different conditions are illustrated in the Figures below. Only the locational terms are shown but the corresponding directional terms are applicable with the same orientations.

In large-scale or navigational space (François 2004) there is only one axis used and this is the up-down axis, oriented north-west to south-east. According to François (ibid) Oceanic language speakers use this scale when away from land or when describing locations of other islands or distant countries. When on land, the land-sea axis is first determined and then this ‘up-down’ axis appropriates to the coastline (where ‘up’ directions occur in the south-eastern half of space). This navigational scale is shown below with Ske terms on the axis, but Ske speakers show some variation in the way they use this scale, as will be discussed further below.

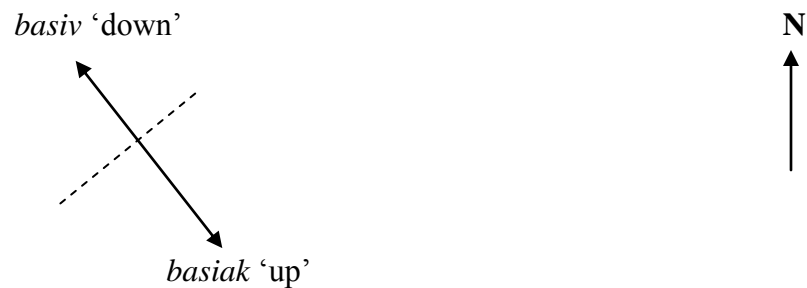


Figure 6.5 Navigational-scale Space

The directions and terms on the axes shown in Figure 6.6 apply to medium-scale space. Medium-scale space includes directions around the island, from the island indicating a direction out to sea and when at sea indicating direction further out to sea or inland. When at sea, this scale of space rather than the navigational scale applies when a land mass is still or usually visible, or is a salient feature for speakers, for reasons such as its accessibility by a short boat trip. Observation of language in use has found that medium-scale space may be overriding navigational scale space when describing distant places, as will be described below. In medium-scale space, the axes have moved as described by François (2004). Figure 6.6 shows that the land-sea axis establishes opposite directions running from the land to the sea and then the ‘up-down’ axis of navigational space adjusts to meet the orientation of the coastline, and ‘up’ occurs in the south-eastern half of space.

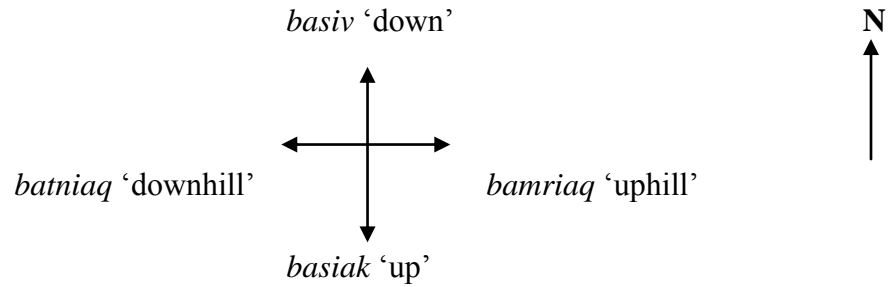


Figure 6.6 Medium-scale space

Turning now to local-scale space, we find a rather more complex situation. At the local-scale, whilst the orientation of the axis remains the same, different terms can be applied to them.

In the local scale of space, the primacy of the speaker or other SAP is paramount and the axes are no longer abstracted from environmental features. The coastal axis is less salient than the uphill-downhill axis and is used in preference to the coastal axis. Terms ‘uphill’ and ‘downhill’ can be applied to various directions and are linked to topographical features rather than being abstractions. Use of local scale space is discussed further below.

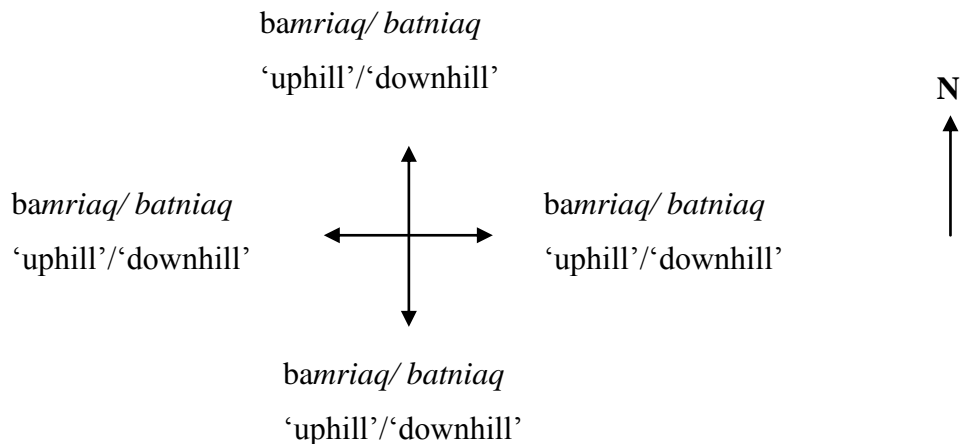


Figure 6.7 Local-scale Space

It is important not to confuse ‘local’ scale of space with ‘small’. In small-scales of space, as when the distances between Figure and Ground are small, local or medium scales of space can be used and this will be illustrated below. ‘Local’ implies that local knowledge of the area is shared and it is these references, this topographical knowledge, which is used. In some small-scale situations, as we saw in Chapter 5 with the table-top space games, the medium-scale of space is used. We found that the choice of local or medium scale of space was made depending on the availability of shared topographical reference point or not. This does not mean that the speaker ascertained whether or not the addressee knew the topography, instead it means that if the topography was salient enough to be used as a reference point, then the local scale was used. So, for example, between different buildings or areas of the villages or gardens, the local scale is available as there are noticeable topographical differences. However in very small scales of space, such as the table-top games or similar-sized arrays in physical space, such as the location of Jonas’ shoes outside the door, topography is not a salient feature. Switch to a medium scale in these situations is particularly apparent when the coastal axis is used: in medium-scale space, the coastal axis is referred to using the reflexes of the ‘up’ and ‘down’ terms (*siak* or *basiak* and *basiv* or *siv*) but when local-scale space was available, then the uphill and downhill (*bamriaq* or *imriaq* and *batniaq* or *itniaq*) terms were used along the coastal axis instead.

In the following sections we examine how speakers apply the scales to describe locations and directions in Pentecost, around the villages and garden, at sea, when on another island and to describe locations within Vanuatu and beyond.




6.3.1 Navigational-scale Space

Oceanic-language speakers use the navigational scale of geocentric reference in situations at sea where a landmass is not a salient reference point to describe direction of travel to different islands in Vanuatu (François 2004); Hylsop (2002) or when describing distant places such as Australia (Hyslop 2002) possibly because they are considered un-navigable.

Ske speakers do not employ a consistent method of describing places in the contexts above. When discussing the locations of islands and countries near and distant, Ske speakers employed various strategies and often avoided references with geocentric terms for ‘distant’ places which were beyond Vanuatu.

6.3.1.1 Locations Within Vanuatu

When locating other islands of Vanuatu, in the majority of cases, Ske speakers used a geocentric term. Map 1.1 showing Vanuatu and its major island is reproduced here for convenience and the navigational-scale and medium-scale axes are illustrated alongside for reference, in Figure 6.8. For this information, speakers were asked to describe the locations of other islands from their position in Bwaravet village. Arrows to the islands or their general directions from Pentecost are illustrated on the map to show the geographical directions

Direction	Term	Gloss	Islands located with this term
	<i>basiv</i>	‘down’	Ambae, Maewo, Banks Islands
	<i>batniaq</i>	‘downhill’	Malekula, Santo
	<i>basiak</i>	‘up’	Ambrym, Efate, Paama, Epi

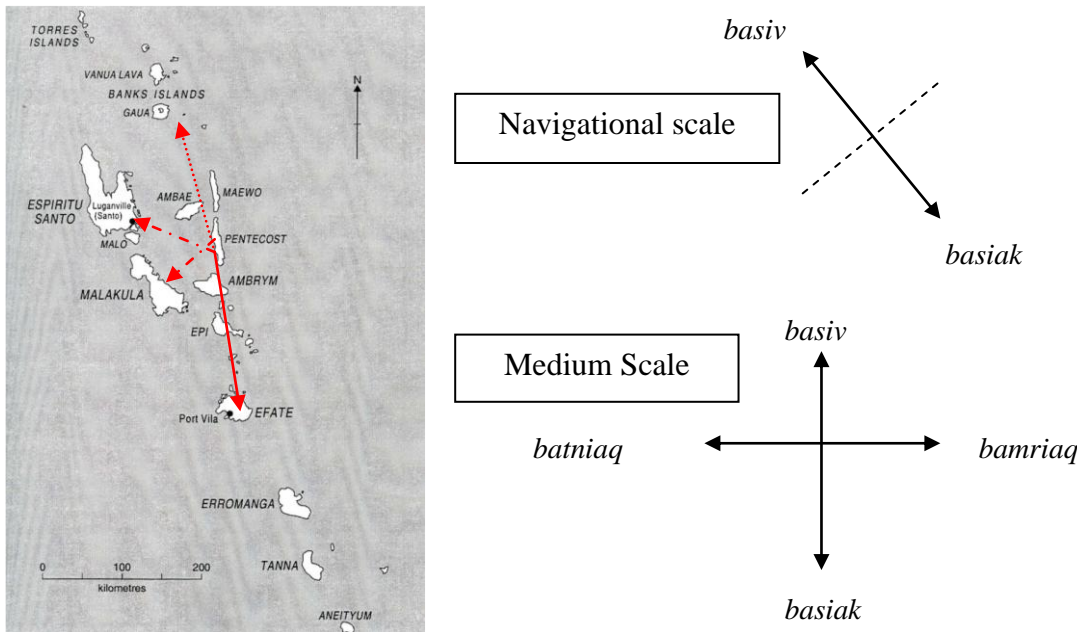


Figure 6.8 Map of Vanuatu with Medium and Navigational-scale Space Axes

The question is, which scale of space are Ske-speakers using when they refer to locations around Vanuatu? The locations offered for the Banks Islands, Maewo and Ambrym all follow the coastline axis orientations used in medium-scale space and are described as being located *basiv* ‘down’. However the locations of these islands in relation to Pentecost also fall into the north-west half of space in the navigational scale, which similarly supports them being located with the term *basiv* ‘down’. So too, both the navigational-scale and the medium-scale axes directions could identify the islands of Paama, Efate and Epi as *basiak* ‘up’. However, Malekula and Santo are both located with *batniaq* ‘downhill’ using the land-sea axis. On a very clear day, Malekula is visible from a high point inland of Bwaravet village and could therefore be considered a salient landmass for Ske-speakers. There are also a number of traditional stories¹² describing visits or travel between Malekula and Pentecost and so the island could be considered culturally-salient. However Santo is not visible and is not culturally or politically-connected to Pentecost¹³. Potentially, Santo has become more ‘navigable’ since the arrival of the weekly cargo boats. The ones which serve Pentecost travel from Santo to Ambae to Pentecost then to Ambrym, Epi and Paama and Efate. Pentecost is the mid-point on the trip and not only do stocks of rice and petrol arrive from the main towns of Santo (Luganville) and Efate (Port Vila) to Pentecost, but Pentecost islanders sell a great deal of kava¹⁴ to the other islands and receive an income from this. Travel between the islands as a result of the cargo ships is affordable and regularly available. Note that the ships travel from Ambae (located with *basiv*) on to Santo (located with *batniaq*) and not via Malekula (located with *batniaq*) whose coastline is not visible on the trip; neither the

¹² The story of how the red-coloured *qrenqrenkuli* (dogtail) flowers appeared in Pentecost after a group of men from Malekula came to the Ske area and stole pigs teeth and jaws because Pentecost pigs had a reputation for growing very large is one such example.

¹³ The islands of Vanuatu are grouped together as provinces and are managed by central government in this way. However, these groupings take into account cultural as well as geographic ties. Pentecost is in Penama province which includes Ambae and Maewo. By cultural, here, I refer to traditional links including trading of commodities but particularly family links as a number of marriages take place between families of these islands. For example, Lessian who I stayed with is one of many women in the area who originate from Ambae.

¹⁴ Pentecost is renowned for having very strong kava. Islanders say the high rainfall and the earth is good for growing it. On the passage from Santo to Efate, the cargo ships make many more stops along Pentecost’s west coast than on any other island. At each stop, more kava is taken on board to sell in Port Vila or Luganville.

trajectory from Malekula to Santo nor the salience of a coastline are possible motivations for locating Santo with *batniaq*. For Ske-speakers, medium-scale and not navigational-scale space is pertinent for geocentric description around Vanuatu.

6.3.1.2 Locations Beyond Vanuatu

When Ske-speakers describe locations beyond Vanuatu the geocentric system largely breaks down and non-specific descriptions which do not rely on an angular spatial strategy are usually employed. A few speakers identified Australia and New Zealand as being located *basiak* ‘up’ and therefore made use of the navigational scale of geocentric reference; these countries were designated locations in the south-eastern half of space. However, the majority of people used phrases such as *kaze navwót* ‘a really long way’ or *kaze endae* ‘right over there’ with some gesture and many described Fiji by referring to a facet of Pentecost island (20). Importantly, however, the uphill and downhill terms of medium-scale space were not employed.

- (20) *Fiji* *m=we* *pasira-n* *ót* *lik*
 Fiji 3SG.IPFV=lie other.side place east Pentecost
 ‘Fiji is on the other side of East Pentecost.’

A study of how Ske speakers refer to these more distant islands has not been made before, therefore it is not possible to state categorically that speakers have switched from using a navigational-scale of space to a medium-scale when referring to locations around Vanuatu. However, with evidence from how locations beyond Vanuatu are described in Ske, where the uphill-downhill terms (or land-sea axis) of medium-scale space was not employed, coupled with evidence from related languages and their systems, we surmise that the navigational-scale of space was used in these instances (beyond and within Vanuatu) and find the following: when speakers locate places within and beyond Vanuatu, it appears that the navigational scale is falling out of use. The medium-scale space geocentric referencing system is taking its place for locations within Vanuatu. Other non-geocentric descriptions are preferred in some instances beyond Vanuatu. Possibly geocentric reference is retained when the landmass is still distant, such as New Zealand, but alternative descriptions are preferred when the location is increasingly

familiar¹⁵. This is potentially due to a cultural change which has made islands within Vanuatu more accessible. We may see changes occurring to how locations beyond Vanuatu are described if and when the regions beyond Vanuatu become more familiar and travel there becomes more likely and possible.

6.3.2 Medium-scale Space: On Land and At Sea

The orientation of axes in medium scale space applies to space at sea and on land.

6.3.2.1 At Sea and Around the Shore

For the Ske community, the direction ‘downhill’ continues when one has reached the shoreline and extends some distance out to sea and between islands. This extension of the land-sea axis beyond the shoreline is a common concept shared by many Oceanic island communities, but not all¹⁶.

The shoreline and sea is a salient feature of the community’s life. A number of people go fishing regularly either around the shoreline and a little further out to sea, but still within a short paddling-distance of the always-visible shoreline. Many people look for crabs or shellfish along the beach. Whilst the river is used for bathing, typically children play in the sea, but people often sit near the shore to catch the sea-breeze.

In (21) Jack Tabi and I were fishing in a boat on the sea, only a few hundred metres from the shore. We had pulled a net and anchored it and were heading back to land. Jack explained which fish we were likely to catch at this short distance from the shore and went on to name those which could be caught in deeper waters further out.

¹⁵ Many Fijians travel to Vanuatu for work and a number of businesses run by Fijians are found in Port Vila. However, more relevant to people from Pentecost was that, at the time of my stay, many Fijians employed as engineers by the telephone company Digicel were travelling and staying on the island as part of the rolling-out and maintenance of their mobile-phone network. Having said that New Zealand is still distant, many Ni-Vanuatu are travelling there for apple-picking season. This is not so common in Pentecost as it is in Epi, but it may increase, in which case we may see an effect on how its location is described in Ske in years to come.

¹⁶ Kubokota, spoken in the Solomons, is one example where the land-sea axis does not extend out to sea. As soon as one reaches the shoreline, one goes ‘up’ to land and also ‘up’ to sea (Chambers 2009).

- (21) *tes mwo batniaq ae mwabe=rave pule*
 little more downhill CONJ 3PL.EXCL=pull.TR snapper
 ‘A little further to sea and we catch snapper.’ (2010-07-10v-jt-15.40)

In Chapter 5 we saw how some consultants in the Men and Trees task used the directional oppositions ‘towards the sea’ and ‘towards the bush’. Unlike the uphill-downhill axis geocentric terms *batniaq* and *bamriaq*, *ba la zeh* ‘towards the sea’ does not extend further than the shoreline. As Jack describes when we are preparing the net and the stone-anchor by attaching two stones to a rope, when we get into the boat we ‘go to the sea’ (22), then we are on the sea.

- (22) *mwade=boze vet de=g-aru ae*
 1SG.EXCL.FUT=tie.TR stone 3SG.FUT=NUM-two CONJ
ta=ba la zeh [..] nadoned
 1DU.INCL.IPFV=go at sea[.] now
a=nok ae
 3SG.PFV=end CONJ
ta=du la zeh
 1DU.INCL.IPFV=exist at sea
 ‘I’ll tie two stones and that’s done and we’re going on the sea, now we’re at sea.’ (2010-0710v-jt-01.10)

Once on the sea it was not possible to use *ba la zeh* ‘towards the sea’ as a direction. The bush-sea terms are used as geocentric terms but they are not abstract projections within the absolute FoR. Instead, they are analysed as geomorphic strategies, as will be discussed further below.

Travelling by canoe along the coastline for fishing or for access to places when the coast road was flooded is commonplace. Inter-island travel on canoes is less common and people may go by one of the few speedboats available, but more typical is transport via the cargo boats. I usually travelled by cargo boat to Vila or Santo, and often in the company of Ske speakers. This made observation of how the geocentric axes operated at sea and close to shorelines possible. Whenever the ship was approaching land to stop at

one of many villages along the route on different islands, with differently-oriented coastlines (from Ambrym to Paama and to Efate when travelling south of Pentecost, or from Ambae to Santo when travelling to northern Vanuatu) speakers always described the approach to land as travelling ‘uphill’ *bamriaq* and when leaving the village and the shoreline, *batniaq* ‘downhill’ was used. It is difficult to calculate, but possibly there is a region between islands where a direction *downhill* becomes *uphill*, but a more likely scenario is that the terms are used pragmatically and indicate the intention of travelling towards or away from land.

6.3.2.2 On Pentecost

On land, the medium-scale space system is employed to describe directions and locations the length and breadth of Pentecost, but can also identify the location of some shoes in relation to the doorway, just a few centimetres apart. Medium-scale space can thus be used over long and short distances on land.

Recall that in medium-scale space, locations and directions on the land-sea axis use the ‘uphill’ and ‘downhill’ terms, and locations and directions on the coastline axis are referred to with the reflexes of the POc ‘up’ and ‘down’ terms, where the navigational scale axis has shifted to appropriate to the coastline and run perpendicular to the land-sea axis.

In (23) Chief Paul gave a speech welcoming people to the village of Ranror from all the extremes of the island to a wedding in the village, near the airport in south Pentecost. The geocentric terms *basiv* and *basiak* here refer to the northern and southern parts of Pentecost.

- (23) *zaoriot* *nier* *be=me* *bie-d,* *famili*
 crowd PL 3PL.IPFV=come proximity-1PL.INCL.POSS, family
 alok, *mwolna-n* *kaze* *basiv,* *mwolna-n*
 big, return.ASSOC-CONST all.the.way down, return.ASSOC-CONST
 kaze *basiak*
 all.the.way up
 ‘Crowds of people are coming to be with us, a big family, it goes all the way
 to the north and back and all the way to the south and back.’
 (2010-07-11v-jt-8.52)

Travelling the length of Pentecost on foot, as the weddings guests did, takes a number of days. Location descriptions which identify distant locations which are accessible in a day, for example places which are a few hours’ walk away, are described using medium-scale spatial reference. Valiamit, Chief Willie’s inland village, is a few hours’ walk from Bwaravet, located in Pentecost’s rugged interior. Valiamit is located *bamriaq* ‘uphill’ of Bwaravet. The airport is a fifteen-minute truck journey south along the coast from Bwaravet in the Ske-speaking area and is located with *basiak*. Lolmulmul, a village ten minutes’ walk north of Bwaravet, and still within the Ske area, is located with *basiv*.

As mentioned previously, when meeting anyone who is walking or travelling by truck, the question, ‘Where are you going?’ is always asked. If someone is travelling along the long road which hugs the Pentecost coastline, the answer is typically either (24) or (25)

- | | |
|--|---|
| <p>(24) <i>mwa=ba</i> <i>basiv</i>
 1SG.EXCL.IPFV=go down
 ‘I’m going north.’</p> | <p>(25) <i>mwa=ba</i> <i>basiak</i>
 1SG.EXCL.IPFV=go up
 ‘I’m going south.’</p> |
|--|---|

The directions and locations along the road then, which goes from the north to the south of Pentecost, are referred to using the coastal axis terms of medium-scale space. A traveller using this scale to describe the trip could be going just a few kilometres along the road, or be going on a long hike many villages and hours’ or days’ walk away.

A further example illustrates clearly how in very small-scale spatial events, speakers make use of medium-scale references. In (26) a pair of shoes was located just outside the house. Pastor Timothy and Jonas were inside the guesthouse and on Pastor Timothy's leaving, he noticed that two identical sets of flip-flops were at the door¹⁷. He was unsure which were his and which belonged to Jonas. On being asked, Jonas replied with a description of where he had put his:

- (26) *vanblansihlie-q* *m=sok* *ót* *vwów* *lal*
shoe-1SG.EXCL.POSS 3SG.IPFV=be.grouped place outside at
im, *ba* *basiv*
house, go down
‘My shoes are outside the house, towards the north.’

The pairs of shoes were located either side of the doorway, perhaps a metre apart, and the medium-scale reference was used.

There are numerous examples where this scale is used in the corpus since most conversations will at least begin with where someone is going or has just been. Medium-scale space operates over long distances and also short, small-scale distances. The prevalence of the medium-scale of space in the Men and Trees stimuli task, as described in Chapter 5, provides plentiful evidence of how this scale is available to speakers to describe the location of one entity in relation to another in small, table-top space.

Local-scale spatial reference is also available to speakers over similar distances. Sometimes it is not entirely clear whether local or medium-scale space is being used, but in other instances it is very clear. We describe those clear instances first and then discuss the ambiguous ones in the following section.

6.3.3 Local-scale Space

On the local-scale, locations and directions are described using only the uphill and downhill terms on all four points of the axis; the coastline axis terms of medium-scale

¹⁷ Varied designs and styles of flip-flops are limited in the village, where the store generally sells any colour, as long as it's black.

space are not employed. Furthermore, the uphill/downhill terms are not fixed to a particular axis point and instead can occur on any of the points. The implication of this is that instead of the terms being abstracted from the gradient of the hillside, they are in fact sensitive to the topography of the environment in which the spatial event is taking place.

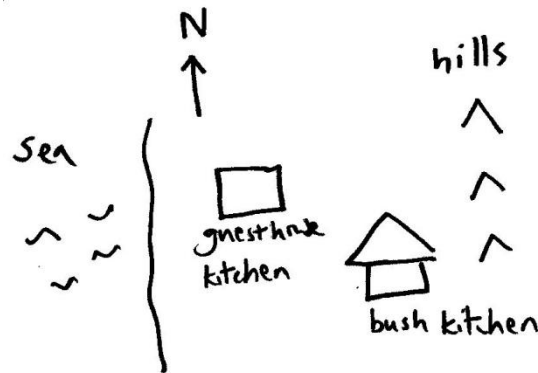
A number of spatial descriptions for places within Bwaravet village and the garden areas nearby use the terms for the uphill-downhill axis but in a mirror image of the medium-scale axis, so that what was designated as downhill becomes uphill and vice-versa. However (27) was an example which I frequently heard, since it was in the locale of the guesthouse and where I was living.

Each day, Jonas, Lessian and I would walk to and fro between the guesthouse and the kitchen. A location description of their kitchen (positioned inland) from the standpoint of the guesthouse, the store, or Jonas and Lessian's house, would presumably be designated as being 'uphill' in medium-scale space. In fact, descriptions repeatedly located it as 'downhill' (27).

- (27) *vale-n* *rang~rang-an* *m=ka* *ba*
 house-CONST REDUP~cook.INTR-NOM 3SG.IPFV=hang go
 itniaq, *povohe* *ra-n* *sie-ri*
 downhill, near top-CONST edge-river
 'The kitchen is downhill, near the riverbank.'

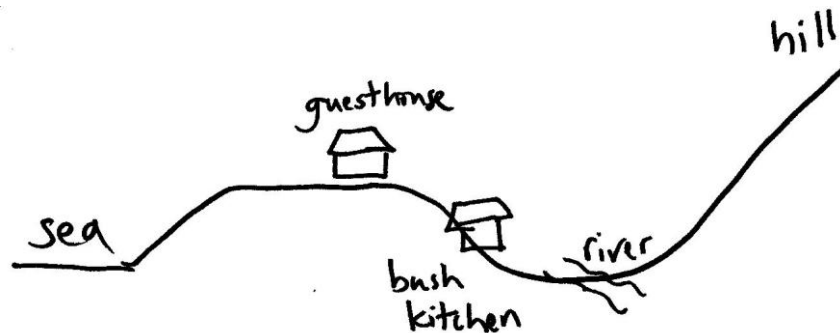
In Chapter 1 it was mentioned that there was a kitchen in the guesthouse and nearby, was the bush kitchen. Each had different facilities (gas-stove and hob or earth-oven and bread oven) and this meant that the family would constantly use one or the other kitchen for different purposes and was therefore always distinguishing between the two. The 'uphill kitchen' indicated the one at the guesthouse and the 'downhill kitchen' referred to the bush kitchen. However, the uphill-downhill axes in the medium-scale of space would locate the two kitchens in the opposite way; the guesthouse would be 'downhill' and the kitchen 'uphill'.

Figure 6.9 Bird's Eye View of Location of Guesthouse Kitchen and the Bush Kitchen



In fact, the family were using the local-scale space axes which take into account the topography of the immediate environment, and not the abstracted terms 'uphill' and 'downhill'. When standing near the kitchens it is clear why the guesthouse one would be uphill; a river runs around the back of Bwaravet village and the land descends to the river bank before going steeply, in some part, uphill once more. The kitchens are shown again in Figure 6.10.

Figure 6.10 Topographical view of Location of Guesthouse Kitchen and the Bush Kitchen



The villagers are very well-acquainted with the local topography. Descriptions like those of the two bush kitchens are easily understood in the right context with the right local knowledge and are commonly heard around Bwaravet to refer to locations and buildings with respect to the speaker's current location, i.e. when the SAP is the deictic centre and a Figure is located with respect to him or her.

Another example occurred one evening when the entire village was assembled in the open space near the church in Bwaravet at the end of a day-long birthday celebration. A

video and television had been rigged up to a generator and we were watching a Bollywood film. Suddenly the generator stopped and with no mains power in the village we were in the dark. Jack called out to his daughter to find a torch from their house (28) slightly further inland and uphill of the village centre, but also further north of where we were seated. The coastline axis of medium-scale space was not used here, instead the topographically sensitive local-scale was preferred. It should be noted that the fact that Jack was asking his daughter to go to the house was not made explicit. The house was implied only by reference to its location; a strategy which requires the addressee to understand the reference, presumably from some shared knowledge of space and pragmatics of the utterance.

- (28) *ti=ba* *krav=ne* *no-q* *ser* ***bamriaq***
 2SG.FUT=go look=TR CL.GEN-1SG.EXCL.POSS lantern uphill
 ‘Go and look for my torch uphill (at the house uphill from here).’ (jt-b13-57)

Similar examples were heard around Bwaravet and in the gardens behind the village. The Bwaravet area is undulating, with some gardens on steep slopes. A network of rivers and streams run through this area with many waterfalls, but there are low-lying areas too. One can be on a hilltop looking towards the centre of the island (and therefore ‘uphill’ on the land-sea axis of the medium-scale of space) yet say ‘that’s my garden downhill’, since the land drops away, downhill towards a river.

A final example is from Chief Willie who would often say (29) when I left his house to return to the guesthouse, which was the last house at the extreme north-end of Bwaravet.

- (29) *ale* *ti=ba* ***batniaq!***
 CONJ 2SG.FUT=go downhill
 ‘OK, off you go downhill’. (to the guesthouse)

For me, the more salient reference point would have been that the guesthouse was further north of the chief’s house. The chief’s house was set further away from the coast road and inland of the guesthouse but also towards the southern end of the village, with the guesthouse being located at the northern edge, close to the coast road. However, its

location using the coastal axis of medium-scale space was not selected and instead, local-scale space and the importance of local topography was the more salient reference point: *batniaq* ‘uphill’ was here used to describe a location slightly further towards the sea and downhill whilst being significantly further north. The use of *batniaq* here could have led to ambiguities: other houses were located ‘downhill’ of the chief’s, more obviously ‘downhill’ on a medium-scale of space (i.e. towards the sea or west of the chief’s house) however the pragmatics of the utterance allowed for the guesthouse to be understood as the intended Figure in the description.

6.3.4 Local-scale or Medium-scale Space?

At times it is unclear whether local or medium-scale space is in use, because both scales are identical in one particular situation: the land-sea axis of local-scale space is termed and oriented the same as that of medium-scale space when the topography of the local environment is inclined so that uphill and downhill directions on the land-sea axis of medium-scale space are also physically uphill and downhill in the local environment. Also which scale is in use may seem irrelevant; if locations are referred to in the same way and ambiguities do not then arise as to which direction is intended (as they do when the local scale is a 180 degree rotation of the medium scale) which scale is used may not seem important.

However, we see differences in the way that the scales are used, which lead us to conclude that these distinctions are still important. Two factors are noticeable. Firstly, we find that pragmatics plays a large part in local-scale spatial descriptions, as we saw in the examples (28) and (29) above where Jack and Chief Willie implied specific buildings with reference to geocentric location only in local-scale space. Secondly, we find that local-scale spatial descriptions are not used when the SAP is not the deictic centre. For example, in the very small-scale spatial descriptions where the shoes are located just north of the door, the medium-scale of space was used.

The examples to follow are ambiguous with respect to whether a local or medium-scale spatial reference is used, however we will analyse the references with respect to the two

issues above: whether pragmatics is important in understanding the reference and if the speaker is the SAP or not.

In (30) the description locates a guesthouse which was under construction. Thatch roofing slats were piled in Minnie's kitchen ready to hang on the guesthouse roof. Minnie's house is located up a steep bank into Bwaravet village and the guesthouse is located down the bank on the flat ground towards the sea and near the shoreline.

- (30) *skor de=ba batniaq*
 thatch 3SG.FUT=go downhill
 'The thatch roofing will go downhill (to the guesthouse).'

The spatial description could be an example of a medium-scale spatial reference, where 'downhill' means towards the sea on the land-sea axis. However, it is also located topographically downhill. The speaker is also the Ground and therefore the Figure, the guesthouse, is located with respect to a Ground which is the deictic centre. In order to understand the sentence, pragmatics are involved. We therefore find that this phrase uses the local-space strategy because topography and pragmatics are more relevant than the land-sea axis distinction.

The inland gardens of the Ske community are either in low-lying areas following the course of the river inland until a waterfall is reached, or on hillsides above the village. On one trip accompanying Minnie to her garden on the steep slope behind Bwaravet, she stopped to cut a bunch of bananas. Her intention of taking the fruit back to her house in the village downhill is implicit in the use of the term *batniaq* 'downhill', since we were on higher ground inland at the time.

- (31) *mwa=ba wane ba batniaq*
 1SG.EXCL.IPFV=go carry.on.shoulder go downhillwards
 'I'm taking it downhillwards (to my house downhill from here).'

Once again, the reference is ambiguous with respect to whether it uses local-space or a medium-scale spatial strategy. Again, however we find that the speaker is the deictic centre and the Figure is located with respect to her, and that pragmatics plays a large part in understanding the sentence: any house of the village or area of the village was located downhill from the deictic centre, however the fact that Minnie's house was the intended Figure was implicit.

The following examples are also ambiguous because reference to 'downhill' is used, however in each case, the SAP is not the deictic centre and the Figure is not inferred but explicitly stated in the sentence.

The first example comes from a situation where Gaylee and I were standing amongst a crowd of locals and tourists gathered to watch the land-diving, Gaylee spotted a woman holding a tiny device, which turned out to be a video camera, and asked what she was doing, as it was not clear at first sight. Given the number of people, she had to give me a precise location so as to identify the woman in question. We were standing at the foot of a hill at the top of which the land-diving tower was constructed. We were standing towards the sea (on the land-sea axis of medium-scale space) but also on the slope of a hill, downhill also in the local-scale of space. The woman was standing downhill of a tree stump and positioned closer to us.

- (32) *azó=dae* *m=um=ne* *ske?* *ziamat* *ne* *m=pet*
 person=DIST 3SG.PFV=do=TR what? woman REL 3SG.PFV=stand
pasira-n *bwaudia* *me* ***itniaq***
 side-CONST tree come downhillwards
 'What's that person doing? The woman who is standing on the downhillside of the tree, towards me.' (gt-b13-33)

In (33) Lessian was advising me which of two washing lines I should hang my clothes from. The two lines were hanging parallel to each other only a few centimetres apart. One was slightly further under the eaves of the storeroom roof which would protect it from the rain and was the motivation for Lessian's instructions as rain was on its way.

(33)	<i>ti=tentene</i>	<i>no-m</i>	<i>ul</i>	<i>nier</i>
	2SG.FUT=REDUP~hang.TR	CL.GEN-2SG.POSS	clothes	PL
	<i>ra-n</i>	<i>qa</i>	<i>ne</i>	<i>itniaq</i>
	top-CONST	PRON	REL	downhillwards
	'Hang your clothes on the downhillwards one.' (lt-b14-19)			

The washing lines were positioned parallel with the coast axis. Reference to the 'downhill' one here thus referred to the one slightly closer towards the sea on the land-sea axis of medium-scale space, or again, the downhill one if topography were being referred to in local-scale space. In this example, with the washing lines hanging off the ground and with such a small distance between them, it is hard to state that topographical differences in the inclination of the land between the two washing lines would be a salient reference point.

The analysis is that in (32) and (33) the medium-scale of space is used. In both examples, pragmatics do not play a part in ascertaining what the Figure is, as it does when houses or guesthouses are implied in examples (31) and (30) above. Also, the SAP is not the Ground in (32) and (33); the Ground is a tree stump or a washing line in these examples. Furthermore, in the examples that we analyse as taking part in the local-scale of space, the Figures (the houses and guesthouses) are not moveable entities: their locations are fixed and known. In contrast to the location descriptions of the washing lines, the shoes and the video-recording lady, the Figures are all moveable entities whose locations are not fixed and are known to the community.

We now look at how Ske spatial references fit into FoR typology.

6.4 Re-analysing the Geocentric FoRs

In Chapter 5, the 6-way classification of FoRs was described. In contrast to the traditional 3-way classification where references that used landmarks, features of the environment or topographical features were subsumed under the absolute FoR, the 6-way classification recognises three sub-types. In Table 6.2 below, the FoRs classed as geocentric, geomorphic, landmark and absolute, are repeated from Chapter 5.

Table 6.2 The Geocentric FoRs

<i>Geomorphic</i>	In a geomorphic FoR the Anchor is different to the Ground. The Anchor can be an environmental feature or gradient, such as the gradient of a hill or direction of flow of a river. The axes of the Anchor are projected on to the Ground and in location descriptions the vector moves in the direction of the river flow or hill gradient from the Ground to locate the Figure. Examples of the geomorphic FoR are <i>the ball is downriver/uphill of the chair</i> .
<i>Landmark</i>	In a landmark FoR the Anchor and Ground are different entities. Here the Anchor is a man-made or natural feature of the surroundings such as a tree, the sea or building. The Anchor does not have opposing axes in a landmark FoR unlike in a geomorphic FoR where <i>downriver/upriver</i> or <i>downhill/uphill</i> directions oppose each other. The vector moves from the Ground in a direction towards the landmark to locate the Figure. An example of landmark FoR is <i>the ball is towards the church/ churchwards of the tree</i> .
<i>Absolute</i>	In an absolute FoR the Anchor is distinct from the Ground and is a set of fixed bearings which are abstracted from an environmental feature or gradient. <i>The ball is west of the car</i> is an example of the absolute FoR as the place where the sun sets and rises moves over the course of the year but the cardinal points are abstractions and do not change.

In medium and navigational-scale space, Ske speakers use axes whose orientations are fixed bearings abstracted from an environmental feature: coastline, hill gradient and wind-direction.

When Ske-speakers locate entities with the local-scale system they are using the gradient of the hillside as the vector. It is not abstracted from an environmental feature but is instead a projection of those features; when there stops being a ‘downhill’ because the land goes sharply uphill after the low river bed, then the local space ‘downhill’ direction can no longer be used.

In local space then, Ske speakers use a geomorphic FoR but in the medium and navigational scale, an absolute FoR is used. This is not to suggest that Ske speakers

select a particular scale to use as if from a menu, rather than their familiarity with the environment motivates the use of a local scale over a medium or navigational scale.

6.5 Summary

Geocentric referencing in Ske can operate on three scales: navigational, medium and local. The navigational scale, which divides space in two halves either side of an axis which runs approximately north-west to south-east and is thought to be motivated by the trade winds (François 2004) is being usurped by other strategies. When describing islands within Vanuatu, the medium-scale system takes over, but when describing regions beyond Vanuatu the navigational scale is used alongside other strategies which do not require an angular spatial calculation.

The reason behind this could be a cultural change, whereby people are travelling more or are in contact with other areas of Vanuatu more easily than they have been in the past. Areas and their locations become more familiar and are not travelled to only by canoe or other vessels which rely on the trade-winds, but also by plane or sea vessels with engines.

The medium-scale system also operates in large and small scales; from between islands to between washing lines.

Local-scale space also operates on small-scales of space. Local knowledge of topographical features is needed in order to use the scale. It is suggested that pragmatic use of spatial language usually operates on the local scale as it relies on implicit knowledge of where a speaker means when they say 'I'm taking this downhill', because they could be going uphill on a different scale. In small-scales, use of the local-scale system works when the location is known, fixed and its location and topography are familiar. Local-scale space is also used when the SAP is the deictic centre and the location of the Figure is calculated in relation to him or her. Medium-scale space operates over small distances when the Ground is not the deictic centre and when the Figure to be located is not a fixed object such as a house or kitchen whose whereabouts are known to all.

This study makes it clear how in table-top space games, such as the MPI Men and Tree Games, the assumption can be that an absolute FoR is used over very small distances as well as large distances and that there is no inbetween. In fact, this study of spatial descriptions in inhabited space makes it clear that this is not the case: an absolute FoR and a geomorphic FoR are used to locate entities in space in Ske. The key factor in the choice between these FoRs is shared knowledge of space, the local environment, the objects within that space and whether an SAP is the deictic centre or not.

Chapter 7

Conclusion

7.1 Introduction

This study has focused on non-angular and angular static spatial expression in Ske, a previously undescribed language of Pentecost Island, Vanuatu.

The domain of space as a research topic provides an opportunity to look into the link between language, cognition and also variation across ages, cultures, linguistic background, education and environment in order to ascertain what is learned and what is innate and to what extent we can acquire ways of thinking or speaking about such a fundamental way humans have of organizing the world around us. As such there is extensive research in different academic fields including neurolinguistics, anthropology, child language acquisition, behavioural psychology and linguistics to name but a few. Researching space offers an opportunity to investigate the link between language and cognition by looking at how we organize the world around us and navigate our way in it, how we use language to express this manner of organization and then, how do our changing experiences in life affect these organizing patterns and forms of expression, and which affects which: do we think the way speak, or speak the way we think, i.e. does language influence thought or thought, language?

With respect to linguistic typology and frameworks for analysing how languages express spatial thinking, this study has referred to work investigating non-angular and angular reference. For non-angular reference we have analysed Ske with respect to the BLC typology and locative predicate typology. For angular reference, we have investigated Ske by drawing on the Frame of Reference framework. In each area we have found interesting exceptions and developments which can be made to the typologies and frameworks with the addition of Ske data to the large body of existing work.

7.2 Non-Angular Reference: Key Findings

7.2.1 BLC Hierarchy

We started with comparing functional equivalents, the answer to the question: ‘Where is X?’, to see what form the Basic Locative Construction took in Ske and also to see if it reflected the hierarchy proposed by Levinson & Wilkins (2006), i.e. to see where it made ‘cuts’ across space: where it differentiated between spatial events and where it expressed them in alternative ways. We found that in fact Ske did not follow the hierarchy. Events which were more likely to be expressed by the BLC, according to the findings of Levinson & Wilkins (ibid), were instead expressed by alternative constructions. In fact, the hierarchy bore little relevance to Ske topological expression. As Figure 7.1 shows, repeated from Chapter 3 but with the addition of Ske forms used to express the event, (shown on the right hand-side of the Figure) only the most typical scene, the ‘moveable Figure in contiguity with the Ground’ is reliably expressed using the BLC. When the ‘Figure is part of the whole’ (no.4) then a presentative expression is used and when the ‘Figure is damage’ (no.3) an existential expression is used. For all other scenes, either the BLC or an alternative expression may be used.

	Likelihood of other constructions	SKE FORM
1. The Figure is impaled to the ground		BLC/alternative
2. The Figure is stuck to the ground		BLC/alternative
3. The Figure is ‘damage’ or negative space (e.g. crack/hole)		alternative
4. Figure is part of whole (part of ground)		alternative
5. Figure is adornment or clothing		BLC/ alternative
6. Figure is inanimate, movable entity in contiguity with ground		BLC

Greater likelihood of BLC

Figure 7.1 BLC Hierarchy (Levinson & Wilkins 2006: 3) re-analysed for Ske

Levinson & Wilkins (2006: 515) found that the BLC hierarchy was possibly better described as an ‘emergent generalisation’, however for Ske there is no linearity in the

way the scale is organized. Since often both the BLC or an alternative construction is used, it would be worth further investigation to see if a more complex pattern emerges to determine why this should be the case and when one is selected over the other for these scenes. For example, in attachment scenes where there is greater agency involved resulting in the attachment, an alternative construction tends to be found, although this is not always the case. Finer-grained distinctions between the scenes are required.

7.2.2 Locative Predicates

The study has found that Ske has a large number of locative predicates for its ‘type’, which usually has up to seven, and that it includes verbs other than posturals in its repertoire; the Ske locative predicates also code properties of entities ‘being liquid’ and there is a predicate which expresses location of non-singular number of entities. The small number of typological studies on locative predicates emphasise how locative predicates refer to axial properties of the Figure, however, in Ske, locative predicates were found to code support relations between Figure and Ground. Specifically, the level of support required for the Figure to maintain a stable position was paramount. In this way, a cigarette can ‘stand’ in a mouth and a house can ‘hang’ on a hill. Another very important feature of locative predicates was that their semantics were found to include not only meanings in the domain of force-dynamics, but also socio-cultural associations with the verbs lent them important pragmatic meanings. For example ‘lie’ in a horizontal position and ill-health were closely-linked and could be easily misunderstood and misused by the novice with unintended consequences. Further work on locative predicate typology is needed to study the range of semantics they code and verify if the emphasis on the relationship between axial properties and dimensions of Figures is well-founded or if it could be analysed differently, as it has been for Ske.

7.3 Angular Referencing: Key Findings

7.3.1 Deixis

Moving now to angular referencing, this study found that deictic reference has projective functions and is a type of angular reference which should be classed alongside other FoRs and not classed as a form of non-angular reference, where it has traditionally been

placed. Furthermore, this study finds that deictic reference has properties which make it central to expressions of angular space and should be included in any study of projective relations and Frames of Reference. Deictic relators in Ske, the directionals and demonstratives were found to possess semantics expressing direction and distance distinctions without the need for gesture.

7.3.2 Composite FoRs

Ske speakers are able to combine deictic expressions with topological descriptions, which produce a well-formed angular reference by bestowing an asymmetry on to a Figure. Deictic expressions in Ske can form composite FoRs with other angular strategies and it was suggested that this was possible because the vector of a deictic FoR is able to align with the other vector projected in an object-centred or geocentric FoR. A dispreference for the relative FoR is thought to be due to the large number of bound relational nouns in Ske that combine with a direct FoR and the availability of composite FoRs, which gives great flexibility for speakers to both locate or orient entities in space. The dispreference for a relative FoR is therefore due to the array of expressions and productivity of combining FoRs rather than simply the availability of a geocentric FoR.

7.3.3 Absolute and Geomorphic FoRs over Small Scales of Space

Ske speakers may use an absolute FoR in spatial descriptions over very large, medium and small scales of space. Absolute FoRs in Ske are different, however, for large and medium scales; the large scale has just one axis which differentiates between two directions, ‘up’ and ‘down’, and in the medium scale there are two: one which goes from the land to the sea and another which crosses it and follows the coastline. It appears that the large or navigational scale is falling out of use, replaced by a medium scale which operates across all scales. However, there is also a local scale of space which uses a geomorphic FoR whose axes are not abstracted like those of the absolute FoRs. The axes refer to uphill and downhill directions but over four directions on the axes. This is undescribed in other descriptions of geocentric reference in Oceanic languages. Here, local, shared knowledge of topographical features is paramount and this allows for pragmatic use of spatial language whereby if someone says ‘go back downhill’ every

party knows exactly which house they are referring to. It also means there is no confusion even though ‘downhill’ may mean entirely the opposite ‘uphill’ direction on a different scale.

7.4 Other Themes of the Study: Methodology and Cultural Change

In all areas of the study, the need to expand on data from elicited material by collecting observed data was highlighted. The BowPed questionnaire was a useful preliminary tool to investigate topological relations in Ske, however, it did not elicit all locative forms available to Ske speakers. In the Men and Trees data, we found extensive and varied use of the absolute FoR, but the stimuli kit was unable to capture the full range of expression across different scales of space. Without further investigation, the researcher would have overlooked the important distinction made by speakers in local space. In all areas of the study, if the elicited material had not been supported by observed data, the result would have been incomplete with missing data and, consequently, a thoroughly insubstantial description of how Ske speakers conceptualise and talk about space. It therefore goes almost without saying that further research and an extended stay in the Ske area could uncover more complexities of spatial description, complexities such as how areas of the land and flora and fauna are classified; the importance of ground and land rights; how different areas of the village and villages within villages are described, or how different areas of the nakamal or houses are conceived of and what cultural associations they hold¹. Of course, research of this kind was too broad for this study, but it is certain that the subject is still incomplete without the kind of anthropological research sensitive to these areas mentioned. Even so, it is certain that the objective, comparative data gained through the stimuli tools was inadequate. Furthermore, we found that the subjective nature of many a spatial description, the detailed local knowledge or cultural awareness of the familiar and the unfamiliar and the pragmatic information embedded in an expression, meant that the subject of space was, as a whole, as problematic to theories of language as a generative system as Levinson (2004) noted was the case with deixis:

¹ Much anthropological work or anthropological linguistic research is devoted to study of this kind in this area, such as Bennardo (2000).

‘For those who treat language as a generative system for objectively describing the world, deixis is a big black fly in the ointment. Deixis introduces subjective, attentional, intentional and, of course, context dependent properties into natural language’.

(Levinson 2004)

Another emergent theme across the study was the impact of culture-change on both the language and manner of conceptualizing space of Ske speakers. The impact of language contact, especially with Bislama, was apparent in the number of borrowings in Ske, particularly in the language of younger speakers. However, this was just one symptom. In all areas of the research the effect of contact on the language and the speakers was apparent. Contact means not only acquaintance with other languages, but consequently contact with other people and their ways of doing things: different cultures, imported goods and new technologies.

When we investigated locative predicates we found that certain entities collocated very strongly with certain verbs, but with others there were inconsistencies. Newly imported technologies, such as cars, or variations on familiar objects, such as tables or chairs, could ‘sit’ or ‘stand’. Conversely, houses, whether they were made in the traditional manner or with cement and corrugated iron roofing, were always said to ‘hang’. Recall it was suggested that the manner of fabrication, the hanging of the palm thatch roofing, was the reason behind the choice of the predicate ‘hang’ with houses. Potentially the collocation between a house and ‘hang’ is too strong to alter with new styles of fabrication. With other familiar and traditional entities there was no fluctuation between different locative predicates.

In angular referencing over large-scale space, we saw an area where changing culture appears to be having a great impact on spatial expression in Ske. The navigational scale of space, apparent in some large-scale spatial descriptions in Ske, but also found in synchronic and diachronic descriptions of geocentric reference in Vanuatu and Oceanic languages, is falling out of use. The navigational scale is being replaced by the medium scale of space which differentiates between four directions across two axes in Ske. This scale is synonymous with areas around the island which are more familiar, accessible and

navigable than the large-scale space which uses only the directions ‘up’ and ‘down’, motivated by the trade-winds.

With inter-island travel becoming more affordable, achievable and increasingly necessary as the life of the average islander with a family becomes more expensive where school fees, for example, are required to be paid, further contact, travel and extended stays on other islands for work or study is foreseeable. Also, the steady stream of imported goods and new technologies shows signs, in the increased development of Port Vila and Luganville in particular, but also many other island centres, of only becoming stronger. It remains to be seen what the effect of this is on Ske and other languages. We already find that in Ske, lexical items are being replaced with terms in Bislama, but also a change in frameworks for conceptualizing space is apparent. In Bislama spoken in towns, usage of left and right terms in a relative FoR is very common. Will FoR use in Ske alter further with increased migration of the rural population to town? How robust is the system? Will it adapt to the new environment or will it be associated with Pentecost only? And how will small-scale spatial descriptions adapt to towns? Will new areas become familiar and pragmatic language be found to describe adopted villages in towns or elsewhere?

Spatial expression is and, with our changing cultures and environments, is sure to remain, a rich area for linguistic and other areas of research.

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